

4 RESPONSES TO COMMENTS

This chapter provides DOE's responses to comments received on the DEIS during the public comment period (comments appear in regular type, responses appear in italics). Responses to comments received from individuals who spoke at the Calxico and El Centro, California, public hearings are presented first. Their document numbers begin with CAL and EC, respectively, and are numbered sequentially. For example, the first commentor at the Calxico hearing was assigned document number CAL01. Responses to commentors who sent letters, facsimile transmittals, or e-mails follow those from the public hearings. Their comment documents were assigned sequential numbers, beginning with 0001. Individual comments within comment documents were also numbered. For example, 0004-003 is the third comment from document number 0004. The comments are typed here for the reader's convenience. The original comment documents are reproduced in Chapter 2 of this volume of the EIS, with individual comments highlighted by vertical lines in the right margin and the corresponding comment number to the right of the lines.

A number of concerns (e.g., including an analysis of impacts in Mexico, conditioning of permits, and analysis of parallel wet-dry cooling) were expressed by many commentors. Other comments (while coming from only one or a small number of commentors) expressed ideas that required detailed explanation and, in some cases, changes to the DEIS. These types of comments are summarized in Chapter 3 of this volume of the EIS as key issues. Where appropriate, responses refer the reader to key issues.

Several comment documents in the 0027 through 0086 range were shortened versions of a campaign letter. (See the introduction to Chapter 2 of this volume of the EIS for more details on the campaign letters.) For these documents, the response to a comment often refers the reader to the appropriate comment number from the representative campaign document (usually document number 0022).

Some commentors expressed strong opinions that were either outside the scope of the EIS or that would not result in a change in the analytical approach used or in the conclusions drawn in the DEIS. DOE acknowledges these concerns. Where appropriate, the reader is directed to sections of the EIS that relate to the commentor's concerns.

CALEXICO PUBLIC HEARING COMMENTS

COMMENTOR CAL01: Godofredo Mendez (through interpreter Inez Gonzalez)

Comment CAL01-001

Good afternoon. My name is Godofredo Mendez. He's a resident of Calexico. He has many knowledge about the Valley. And it seems to him that it's incorrect, what's happening with the land and with the water.

In the Valley, for many years, there's been a lot of activity in the agricultural area. And that production has served the whole nation and the areas around here.

I have spoken at other meetings and they have answered to me with stupid responses. I'm not ignorant, even though I'm -- Mexican people think I'm ignorant, but I am not. I have told them about the problems that is happening because of the water and the electric current. And they've said every four years they are going to plow the land. And like I said, I'm not stupid to think that what they say is true.

I know the Valley very well on all four sides. I know the prejudice that has taken place because of the energy from Palo Verde. They want to put up more electric energy, take away our water and there will be a time when we will have to give up our homes, because when the land dries up, we won't be able to stand all the dust that will come up. Many people have to leave their homes because they won't have work. With this, I'm sure you understand the abuse that is directed to the residents of the Valley.

Response CAL01-001

The U.S. Department of Energy (DOE) and the Bureau of Land Management (BLM) acknowledge the commentor's concerns. Impacts to land, water, and air from the proposed projects are analyzed in the environmental impact statement (EIS) in Sections 4.1, 4.2, and 4.3.

COMMENTOR CAL02: John Pierre Menvielle

Comment CAL02-001

I was born and raised in Calexico and I find it ridiculous that the Department of Energy has not yet recognized that regardless of what side of the border you are on, that we both share the same air.

Response CAL02-001

Impacts to air quality in Imperial County from the proposed projects are analyzed in the EIS in Section 4.3. Regarding analysis of impacts in Mexico, please see the response to Key Issue 1.

COMMENTOR CAL03: Congressman Bob Filner

(His written statement read in Spanish by Inez Gonzalez)

Comment CAL03-001

Imperial County's air is under siege. The county currently has the highest childhood asthma rate in the State of California, partly because of pollution from power plants in Mexicali. As the Department of Energy considers Presidential permits for Intergen and Sempra to run transmission lines from their power plants into the United States, it must closely examine the environmental and health impact of these power plants.

The Department of Energy must insist that Sempra and Intergen finance sufficient pollution reduction efforts in Imperial County to offset the emissions generated by your power plants. These companies should have no more than two years to offset all their PM-10s and NO_x emissions by paving roads and supporting other projects in Imperial County.

Response CAL03-001

Regarding the question of DOE requiring power plant emission offsets financed by the power companies, please see the response to Key Issue 3.

COMMENTOR CAL04: Pablo Orozco, Calexico New River Committee**Comment CAL04-001**

The New River is already a huge health and environmental threat to the people of the Imperial County and Mexicali valleys. It is the dirtiest river in North America carrying, among other wastes, the pollution of, at least, 10 million gallons per day of raw sewage into the City of Calexico.

The draft EIS acknowledges that there will be a reduction of water flow and water available from the New River resulting from the operation of the two departments. While any operation that takes treated or partially treated water out of the system reducing the total flow of the river necessarily contributes to the concentration of these contaminants and aggravates the health and environmental risks of our community.

Now, the California Regional Water Quality Control Board recently published a report entitled, "The National Alteration of the New River. This is from April 2004. And in it it reads, it reads:

The InterGen and Sempra Energy Power plants combined utilizes possibly 500 liters per second of wastewater from the San Jose Lagunas. One of the power plants reportedly treats the incoming waste to a tertiary level before being used for its cooling towers. The wastewater that you are international drain has high concentration of total solids and therefore contributes to an increased salinity level in the New River, ultimately the Salton Sea.

Response CAL04-001

Impacts of power plant operations on the salinity of the Salton Sea are analyzed in Section 4.2.4.4 of the EIS. Regarding impacts on the salinity of the New River, please see the response to Key Issue 15. Reductions in flow of the New River would not result in any meaningful health or environmental impacts.

Comment CAL04-002

So just, in closing, we ask that the power plants provide full mitigation for any air pollution originating from their operations. We ask that the power plants implement alternative impact of pollution salinity on the New River and Salton Sea. But most of all we ask that the committee continue to be included in the process and that the people's health and welfare be considered the first priority as solutions are sought and decisions are made.

Response CAL04-002

Alternative technologies and mitigation of air impacts to reduce salinity impacts are discussed in Sections 2.3 and 2.4 of the EIS, respectively. DOE and BLM will consider the impacts analyzed, including health impacts, in any decisions and the proposed action.

COMMENTOR CAL05: Kimberly Collins**Comment CAL05-001**

First, I'm not surprised by the findings of the report. I think it really contains the same old and tired way of thinking by the U.S. federal government bureaucracy that does not recognize that the U.S-Mexican border is a region in which air, water, health issues and economies are shared. This way of thinking is clearly seen in the report on Page S-4, in which the map doesn't really extend into Mexico and is not to scale on the Mexican side. It portrays a sentiment that here we are on the U.S. side and there's some things going on over on the Mexican side, but we are not really sure what's going on over there. If we sort of kind of count it and not really count it in.

Air and water don't follow the political boundaries of governments. They follow the natural flow of the earth. The EIS must conduct a binational and regional analysis. To do otherwise is a half-completed job that does not address the real situation.

Response CAL05-001

The National Environmental Policy Act (NEPA and Executive Order (E.O.) 12114 (January 4, 1979) do not require consideration of extraterritorial impacts. The map on page 5-4 of the Draft EIS (DEIS) was drawn out of scale in Mexico in order to show the configuration of the proposed transmission lines in relation to their respective power plants. Please see the response to Key Issue 1.

Comment CAL05-002

Two, I find it ironic that this review is occurring during the year of the 10th anniversary of NAFTA and really shows the border region has become the [doormat] for NAFTA. It is a place to scrape your boots and as long as the moneys are still being sent to Washington, D.C., it's not a place to worry about human health problems, environmental degradation or future development of the region.

Ten years ago it was hoped by some that if NAFTA was pass and free trade in the Americas became a reality, the border would get much needed attention and funding. This clearly is not happening as seen by the results in this report. Instead of providing investment and infrastructure to begin sustainable development in the region, new projects that contaminate the area are being embraced.

Response CAL05-002

Issues relating to the North America Free Trade Agreement (NAFTA) are not within the scope of the EIS.

Comment CAL05-003

Three, public interest, on Page S-7, I really think needs to be defined. There is a huge difference between the public interest regarding the environment and human health impacts and that of the current reliability of U.S. electric power. It is not, and I repeat not, in the public interest of Imperial County residents to have these two power plants for these following reasons:

Response CAL05-003

Section 4.11 of the EIS discusses the impacts of the proposed action on the health of citizens in Imperial County. Therefore, a consideration of public health is part of DOE's public interest finding in this proceeding.

Comment CAL05-004

One, socioeconomic impacts, which are addressed in Section 5.4.10. The costs to the local economy, which are not addressed sufficiently or appropriately by the draft EIS, will exceed any benefits that might possibly be derived, such as property taxes.

The local economic cost will include lost economic development opportunities as large companies are leery to come to areas that have high amounts of pollution. There will also be public health costs that will be incurred by local governments to care for low-income residents, especially uninsured children. There will also be costs to production to local businesses and individuals with sick days, be it a worker who is sick with respiratory illnesses and needs to take a day off to visit with the doctor or the worker with a sick child that has asthma. These are just a limited example of possible costs that are not included in the draft EIS. I'm sure if someone did a further analysis they might find more.

Response CAL05-004

An analysis of air quality impacts conducted for the EIS found that increases in air pollutant concentrations due to power plant emissions were below U.S. Environmental Protection Agency (EPA) significant impact levels (SLs) used as a benchmark for impacts. The plants would not, therefore, produce any significant air quality impacts in the county. The EIS (Section 4.11.4.2) estimates that the plants would contribute less than one additional hospitalization annually for asthma in Imperial County from PM₁₀ (particulate matter with a mean aerodynamic diameter of 10 µm or less) emissions. Accordingly, no impacts on local economic development or local public health are expected in the county as a result of emissions from the power plants.

Comment CAL05-005

Human health, Section 5.4.11. The human health issues are not addressed in the draft EIS. The Imperial/Mexicali valleys are already nonattainment areas for PM₁₀, ozone and et cetera. There are already severe levels of asthma and respiratory illnesses in the community.

I would hypothesis that there have already been additional human health impacts by these power plants just from the short time they have been running. I base this on two factors: The first, there has already -- I'm sorry -- the first is that there was an already stressed environment and human health system. Additional pollution to that system, even at small levels, can tip the scales and push health of local residents into a dangerous level.

By just talking to my co-workers in Calexico, I, along with them, have experienced an increase in respiratory infections over the past eight months. And I have had a consistent cough and problem with my voice since late last year. And I have always had allergies, so I'm in a sensitive population, but it has seriously gotten worse. If a stringent analysis was actually conducted on the health of the residents in the region, I'm sure that you would find that there has been an impact from the power plants.

Response CAL05-005

Please see the response to Comments CAL05-004 and 0009-005. Section 3.3 of the EIS acknowledges that Imperial County is nonattainment for PM₁₀ and ozone (O₃). However, there is no evidence that the small increments of these pollutants introduced by the power

plants will “tip the scales” or cause any more than a proportionate increase in health impacts as estimated in Section 4.11.

Comment CAL05-006

Minority and low income populations, Section 5.4.12. The environmental justice issues have not sufficiently been answered. Imperial County is 73 percent Hispanic. The education rates are half the state average. The unemployment rates are three times the state averages.

The table on 3.9-2 is incorrect on Page 3-97. The unemployment rates are not 4.9 percent in the Imperial Valley. Last month they were over 18 percent. For 2003 they were over 23 percent. We do not have a lower unemployment rate than the state average, and I’m sure you could do that easily just by walking out the door and looking at individuals who go into food lines looking for food and for health, for assistance for their families. The draft EIS must go back and appropriately address the environmental justice aspect of the power plants and the related transmission lines.

Response CAL05-006

The commentor suggests that the unemployment rate in Imperial County in 2003 was much higher than the rate shown in Section 3.9.3 of the EIS, implying that the minority population is disproportionately affected by unemployment. The EIS used the rate for persons in the county registering to claim unemployment benefits as the basis for establishing the extent of unemployment in the county. While it may be the case that additional persons who were not registered to receive benefits may nevertheless be considered to be unemployed, establishing an accurate count for these individuals is not possible. DOE and BLM believe that the EIS adequately addresses environmental justice concerns related to the proposed actions.

Comment CAL05-007

I’m going to step back a little bit. The issues outside the scope of the EIS from Section 1.3.2. This federal action does affect the global commons. Power plants are known to contribute to global warming. It is impossible to only recognize the transmission lines and not consider the power plants. They function together. Without the power plants, there would be no need to have the transmission lines

Response CAL05-007

The impact of power plant carbon dioxide (CO₂) emissions in the context of global climate change is analyzed in Section 4.3.4.4.3. It is concluded there that impacts would be negligible.

Comment CAL05-008

Finally, this report, I believe, tells the residents/taxpayers of Imperial County and those residents of Mexicali that there will be impacts to our environment and health, but that our public interest does not matter to the DOE and that we are a poor disenfranchised people. If that doesn't scream environmental justice, then I don't know what does.

Response CAL05-008

The analysis of environmental justice issues in the EIS was performed according to guidelines established by the Council on Environmental Quality (CEQ), with an analysis undertaken at the relevant geographic scale (the block group level), by using the appropriate reference populations (the state total low-income and minority populations). Analysis of noise and dust issues along the route of the transmission lines used a 2-mi (3-km) corridor as the relevant affected area, and the analysis of air quality issues used the county as the appropriate scale of analysis.

The analysis found that temporary noise and dust emissions from construction, and long-term noise effects from electric and magnetic fields (EMF) would not produce high and adverse impacts on the general population along any of the transmission line routes. Construction and operation would not, therefore, adversely or disproportionately impact low-income or minority populations regardless of the concentration of these populations in the vicinity of the transmission line corridor.

Analysis of air quality impacts compared modeled increases in ambient air concentrations of criteria pollutants due to power plant emissions over a grid of receptor locations in the county and found that increases were below EPA SLs used as a benchmark of impacts. Since the plants would not produce high and adverse impacts on the general population in the county, they would not adversely or disproportionately impact low-income or minority populations regardless of the concentration of these populations in the county.

COMMENTOR CAL06: Kenneth Smokoska
Sierra Club, San Diego and Imperial Counties

Comment CAL06-001

The Sierra Club has been actively involved in litigation on these power plants and air quality in Imperial County for a number of years. The Supreme Court recently passed on a chance to overturn a Ninth Circuit on Court of Appeals that ordered the Environmental Protection Agency to add this area to a list of communities with some of the worse air quality in the United States, a designation that would require them to spend more money in controlling pollution, yet the EIS had nothing in there for offsets for this air pollution.

Response CAL06-001

Regarding the recent court action, please see the response to Comment 0007-006. Possible mitigation measures for air emissions from the power plants in Mexico are described in Section 4.3.6 of the EIS.

Comment CAL06-002

Secondly, these are definitely connected actions. The power plants, the transmission lines, the importation of LNG, are all connected and the accumulative effects are definitely inadequately addressed in the EIS.

Response CAL06-002

Information provided to DOE and BLM indicates that the North Baja natural gas pipeline had independent value and use even if the Termoeléctrica de Mexicali (TDM) and La Rosita Power Complex (LRPC) power plants were not constructed. For further discussion, please see the response to Key Issue 7. The power plants do not use liquefied natural gas (LNG) as a fuel source.

Comment CAL06-003

Alternative analysis was only considered for transmission lines, not the power plants. We feel that alternative energy production should have been considered due to the severe air quality in Imperial County.

Response CAL06-003

The power plants are already built and operating. Thus alternatives affecting the generation of power are confined to a set of reasonable options for the existing plants. Alternative power sources are considered beyond the scope of the EIS.

Comment CAL06-004

Further, continuing on the unemployment, we are requesting that a study of solar manufacturing plant versus natural gas/carb plants be commissioned. Our unemployment rate is at 20 versus 4.9 in the study. If you take into consideration studies recently that show that 700 percent more jobs are created with solar manufacturing per megawatt versus a natural gas power plant, that could have been potentially alleviated some of the unemployment issues and, also, the air quality issues.

Response CAL06-004

The use of alternate methods for generating power was determined to not be a reasonable alternative for consideration in the EIS; therefore, the study suggested by the commentor is beyond the scope of the analysis in the EIS.

Comment CAL06-005

When you get into water, the Salton Sea has had a tremendous amount of studies done on it as far as the potential for the Salton Sea to be turned into another Owens Valley. Now, with the Owens Lake up in the eastern Sierras, that area has contributed to nonattainment areas throughout the Mohave, Lancaster and other areas and that. There's a significant chance that it will be exasperated [exacerbated] and advanced by the water that's going to be diverted from the New River, both in evaporation and just straight into the cooling. So we definitely would like to have dry cooling considered in this action. And, also, the offsets are imperative.

Response CAL06-005

Analysis of additional PM₁₀ emissions from exposed lakebed resulting from water consumption by the power plants in Mexico is presented in Section 4.3.4.4.4 of the EIS. See also Key Issue 17. An analysis of wet-dry cooling is also included in the relevant impact areas of the EIS. Wet-dry cooling is analyzed rather than dry-only cooling, which is considered technically infeasible as described in Section 2.3.1 of the EIS.

COMMENTOR CAL07: Carlos Yruretagoyena**Comment CAL07-001**

For better or for worse, and for what it's worth, whoever wrote that document deserves some kind of accommodation and applause, because he must have, at least, identified five serious difficulties and one topic for reflection. And these are the ones that I identified. The scope of the study. The legal implications related to possible mitigation or restorations and in the event of an impact or a catastrophe, who will be the one to get blamed or be responsible to duly respond to the society of the community in which that accident would happen?

The disparity in our environmental legislation between our two countries, the criteria that we use to conduct our own environmental impact studies and the absence of validated criteria and a solid background when it comes to particularly evaluating projects of this nature, projects that are being conducted and done and sponsored within the border region, a border region that has been defined under NAFTA and the CEC's agreements and that has been raised by the Keoto (phonetic) and the Rio summits. These considerations were not incorporated in this draft for many reasons, I would like to think.

The other aspect is, whoever does generate this impact, will surely be either prosecuted or followed by whose courts? Ours or yours? And so there is this emptiness between who's responsible in responding to us, the community dwellers, if something goes wrong. It's foreign capital being invested in my country, so then your laws do not attain nor perpetrate or follow whoever has been investing in my country. And if the incident becomes a transnational incident, then the ones that are going to be locked with that issue are going to be the local residents, not the investigators.

The other topic that really started getting my mind to work is the topic for reflection, and what I'm asking: Who's the owner of these power plants? Who will be the owners of the power lines? Who are going to be the ones profiting from the marketing? And from that marketing, how many of those benefits are going to be continuously invested in our communities?

Those are the five obstacles that I identified in that topic for reflection, which I think whoever wrote this document, which is a very heavy document to begin with, really deserves my applause, at least.

Response CAL07-001

The EIS analyzes the environmental impacts of the proposed actions in the United States. Regarding analysis of impacts in Mexico, please see the response to Key Issue 1. NEPA does not require Federal agencies to speculate on opportunities for or impacts from trade. The jurisdiction of courts in the event referred to in the comment is outside the scope of NEPA. The owners of the proposed power lines are identified in Chapter 1 of the EIS.

Comment CAL07-002

Chairman Russell, this is what I have to say about the draft. The draft study has its scope limited only to the area that could be impacted or will be impacted by the transmission lines section that will be built in the United States site. Any other direct or indirect association was not undertaken in this study. So that lends it short in duty considering the overall implications of the risk assessments or the projections that were undertaken.

And since such study only addresses the U.S. side of the transmission lines, it has omitted any other possible direct or indirect association, causes, impacts in health issues and restoration initiatives on urban, rural, land, soil, water and air, and that no swaps will be or have been taken into consideration.

There might be south from the transmission of the energy, the construction of the power lines, but from its initial point of generation, not only as it comes across the border. Because if there's going to be an impact, it should be duly addressed and evaluated since it starts getting generated. And since the generation points are in Mexico, this draft did not include that. Because of the constitutional, legal implications which I duly recognize, it must have been very difficult for whoever was doing this.

The study does not incorporate any issues of transborder, binational nor NAFTA nor CEC environmental safeguards and public health guidelines to diminish and restore possible impacts. In that same respect, it has no possible risk and prevention measures scenarios for the U.S. side and for the Mexican side to address for the immediate area of influence or the border demarcation so as has been defined by NAFTA.

This situation clearly undermines, omits and frees from any possible responsibility the two respected Mexican partners Federal Electrica de Mexicali known as Semptra and Baja California Power known as InterGen, respectively.

I had a very tough time getting to read the MIA document that was supposedly structured by the Mexican companies. I did not have access to it nor have had access to it, not even on request through e-mail. So to me to do a comparison evaluation between to the studies has been almost impossible. Therefore, I am assuming that the Mexican companies did a similar environmental impact study, as requested by the Mexican environmental laws. It's called the MIA, MIA. It's not missing in action. I just want to clarify that. That includes the same, similar or better criteria as it was stated in the May 2004 draft document. If such would be the case, then such study would also be scoped to the Mexican portion of the transmission line project and it would not include the U.S. side. Again, making it narrow-minded, narrow-focused.

In any case, neither have taken into consideration that possible contingencies, environmental impacts and health issues could or would occur with a binational component and as a result of their actions, commercial associations or partnerships, energy supplied projects and energy generation industrial processes. It is clear that in each case neither side have taken such implications in the projection or case-scenario contingency plans. It wasn't clear to obtain a copy nor I have access in the Internet, so I could not evaluate and compare the Mexican documents to contradict or support the comments I am making now.

Response CAL07-002

Regarding the scope of the study, it was not limited only to the area impacted by the U.S. portion of the transmission lines; it includes all regions of the United States that could be impacted by power plant operations as well. With respect to the analysis of impacts in Mexico in the context of a binational study, please see the response to Key Issue 1.

Comment CAL07-003

It was also unclear to differentiate and learn the legal and physical nationalities and legal personality of all the parties involved in the energy generation process currently being developed in Mexicali. I would like to add here, to me, it's been very difficult to get to learn who's the legal entity on the other side of the border. If there is a blame or a complaint to follow up, who should we address it to? Would it be Semptra? Would it be InterGen or would it be Azteca or would it be all of these?

So there should be some kind of a clarification as to who are the legal, the legal parties involved so that if there's any community or public comments to be made or to follow, they should be the ones showing their face in these contingencies.

Response CAL07-003

Sempre and Intergen are the two companies that are proposing to build transmission lines to the TDM and LRPC power plants, respectively, that are analyzed in this EIS, as identified in Chapter 1. The jurisdiction of the court for suit is outside of NEPA.

Comment CAL07-004

I've omitted intentionally any issues pertinent to the water, the soil, the natural resources, the air values, the health that might be affected, impacted, polluted or changed from its original biological, natural or ecological status within our region or influenced directly or indirectly by the power energy generation sources in Mexico and it's complete source of transmission. This we did in our first meeting, and so I think it was sufficiently clear information that was provided for all of you to actually take into consideration in your draft what would be some of the externalities that these two power plants and the project lines will have.

However, the draft -- and this is an initiative that has never been taken into consideration -- has never taken the step in creating a more sustainable holistic approach in actually correlating all these different impacts that will associate or be associated to what does it mean to have these two power plants in our region.

And the gain here of this is to actually give the rest of the border towns a breathing chance that whoever sets a new type of power plant in their community will have more constrained legal and environmental criteria to follow instead of the ones that we have done.

This has been a process in where only Mexico City knows what went on. There is no state nor county by California authority that can give us a clear answer to our questions. No one in Baja, California knows how it was that they got the permissions, did the studies and how was it that it got approved without public consent, without public notification and without Baja, California public involvement. And that is a true fact that is still evident in our state. So here we are talking legal and environmental matters in your way, and their partners are doing something else. So we don't know what the real deal here is.

Response CAL07-004

The EIS analyzes impacts in all relevant impact areas, as suggested in CEQ guidance. Further, it analyzes the impacts of the power plants within the context of cumulative impacts from reasonably foreseeable future power plants and other developments in the region. Regarding the permitting of the power plants in Mexico, please see the response to Key Issue 1. Appendix J, which provides a summary of the permitting in Mexico that was performed for the power plants, has been added to the Final EIS (FEIS).

Comment CAL07-005

In any case, such studies, however, did not take into consideration the external or externalities associated to the possible impacts that the power plants construction and operation, as well as the magnetic field increments case scenarios of risk would have effect on the two nations nor the public binational, local interest.

The draft study supposes, almost in good faith, nor mentions that a similar detail professional impact study for the power lines in the Mexican line has been conducted and submitted for public revision and comments. In that same respect, it also fails to mention of the revisions and reequations (phonetic) that have resulted from such initiative. Since this initiative has not been taken place, there are no reequations to that Mexican side of that MIA document.

In this respect, I can only comment that any document consultation, copying requests or a evaluation needs still be made directly to Mexico City, not the Energy Commission offices for access have been, in my case, denied.

This point in case is fundamental to know because of the limitations and responsibilities of the permit seekers on each of the sides of the border and the social commercial names stated on their respective companies. In any event, if they are responsible as legal entities to confront any given issue or correction of actions against them by the authorities or communities themselves.

Again, I thank you for allowing me to speak. Hopefully this time we'll get it right. Hopefully. And I know that it's a -- it is not easy when there is no criteria, there is no legal, constitutional mandates that will allow parties of the two nations to come together and do a binational evaluation. Not passing by, but incorporating mutually our laws and our environmental criteria that has never be done in the border towns. That could be one of the most strongest suggestions that we could make. We need to work binationally so that if we are to do something right binationally that will benefit the two sides of the border fence, it should be with the undertaking of the two governments doing the same thing in the same place for the same people.

Response CAL07-005

Regarding analyzing impacts in Mexico, please see the response to Key Issue 1. Appendix J, which provides a summary of the permitting in Mexico that was performed for the power plants, has been added to the FEIS.

COMMENTOR CAL08: Bill Powers, Border Power Plant Working Group**Comment CAL08-001**

And my impression from the EIS is that little, if any, of that information from those declarations served as a point of departure from the document. It's almost as if we went back to the period when we were looking at the environmental assessment in the FONSI. And the authors were

working off of information from late 2001 without incorporating all of that tremendous amount of good information that was in there. So that's an overview of the document.

Response CAL08-001

Declarations given in court proceedings regarding the interim operation of the transmission lines and materials provided during the public scoping and comment periods were consulted as necessary in the preparation of analyses in the FEIS.

Comment CAL08-002

Comment No. 1 is very straightforward: DEIS must explicitly state that the New River flows north into the Sonny Bono Salton Sea National Wildlife Refuge so reader understands significance of New River quality issue. Most people here understand the river flows north. Anyone outside the region that would be a surprise. And, I think, that should be front and center. This is going north, it's going into the U.S. If it was going south, we don't care. Not to offend anyone from Mexico, it's just from a U.S. environmental assessment, if it's flowing south, it's in Mexico.

Response CAL08-002

Text explicitly stating that the New River flows north into the Sonny Bono Salton Sea National Wildlife Refuge has been added to Section S.1.3 of the EIS. Figure 5-8 (formerly Figure 5-7) and Figure 2.2-17 have been modified to show the direction of flow of the New River.

Comment CAL08-003

The next comment is more substantial: DEIS cites incorrect interpretation of E.O. 11214 [12114] as basis for determining that project impacts in Mexico are outside the scope of the EIS.

That's a one-sentence citation in the document. Because the Executive Order from the Carter era was written that there is -- this is a shield. We don't look at impacts in Mexico. And I did read this order after seeing that, and it's interesting, because it seems that the intent of the order is the exact opposite of that. The order states: This order furthers the purpose of the National Environmental Policy Act. Agencies shall establish procedures taken into consideration in making decisions. Major federal actions significantly affecting the environment of a foreign nation.

This is telling us that you're going to do something that could affect a foreign nation. You have to look at what's happening in the foreign nation. It also states: Nothing in this order shall serve to invalidate any existing regulations of any agency, or pursuant to judicial settlement of any case, measures in addition to those provided for herein to further the purpose of the National Environmental Policy Act.

Well, this case is under a judicial order, and we are doing this because of a court environment where the judge explicitly said she would like to know what's going on in Mexico. And so in reading that, just reading what's there, it would seem not only is it not justification for not looking at impacts that are occurring in Mexico, pulmonary sickness or water issues, this Executive Order is actually justification for looking at those. Not for ignoring them.

And my recommendation is to leave the reference to Executive Order 11214 [12114] as justification for ignoring assessments and include information that was provided to Argonne back in February, which is explicit. It tells you how many cases of asthma, how many cases of other pulmonary sicknesses there are in Mexicali. And it's important to roll Mexicali in, because Mexicali is five times bigger than Imperial County. So you are talking about "X" cases in Imperial County, you're talking about five "Xs" in Mexicali. So it's important information.

Response CAL08-003

Regarding analyzing impacts in Mexico and the interpretation of E.O. 12114, please see the response to Key Issue 1. Regarding Mexico authority over the power plants, Appendix J has been added to the EIS to provide a summary of the permitting in Mexico that was required for the power plants. The health information mentioned in the comment is now cited in Section 4.11.4.2 of the EIS.

Comment CAL08-004

Next comment: DEIS fails to analyze the preferred parallel wet-dry cooling system alternative. DEIS simply states that dry cooling imposes a 10 to 15 percent efficiency penalty on the steam cycle. And the -- obviously, if you've got a big penalty like that, you probably want to stay away from it.

But this is where, as a professional engineer, I have a real bone to pick with the DEIS, because that is a misleading statement. The overall efficiency impact of dry cooling is more on the order of 1.5 percent or less. And this is -- we have another project currently in the process of being permitted. Most of these are built, but that's in the process of being permitted, which is Blythe II Power Project, which is referenced in the document, 520 megawatts, Blythe.

The California Energy Commission staff is recommending dry cooling at that site. And they identified in their preliminary decision, they estimate the efficiency impact of dry cooling in Blythe, which is just as hot as Mexicali, is 1.5 percent or less overall. And so at a plant nearby under the same conditions, the California Energy Commission is telling us that the overall efficiency impact is one-tenth or less what is stated in the EIS. Again, for the steam cycle, that means nothing to someone who is a power plant engineer.

We did have a scoping period and we submitted scoping comments, and we recommended that the appropriate cooling system here, especially since these wet systems are built, is it be retrofitted parallel with a wet-dry system. And it's spelled out in detail in the scoping comments and the backup papers are provided. And we can provide them, again, with these comments.

But that parallel wet-dry cooling is dismissed as using 50 percent of the water of a wet system in the EIS. You could build it that way. I wouldn't recommend doing that. And I would say that since we provided so much specific, detailed information on how you would do it here, that that information needs to be looked at.

Recommendation on this is: Incorporate wet-dry cooling in both of these plants retrofitted to incorporate wet-dry cooling. Make it simple, give the developers, the operators a target. You reduce your water use 90 percent or more from what is currently identified. Consumptive water use is at nearly 11,000 acre-feet a year, which is over three-and-a-half billion gallons a year, the target is 90 percent or less reduction. You can use that water whenever you want. If you want to use it at the peak of the summer when it's hot, you can run it as a straight wet system and get maximum megawatts, but you are conserving water at the system.

And a couple of the attachments that are provided are, one, a paper written by Hamone (phonetic) Dry Cooling on how you build a wet-dry system to minimize that water use. Two is the one retrofit from wet to wet-dry that's been done in the United States. An excellent paper was given on that a couple years ago at the Dry Cooling Symposium, and that paper is provided as an attachment. That system is probably one-fifth the size of the steam cycle here, but it's an example of how it's done and where it was done and what the cost was like.

Response CAL08-004

Please see the response to Comment 0004-003. Section 2.3.2 of the EIS now includes a discussion of the retrofit of a wet-dry cooling system to the existing power plants that retains the existing wet cooling systems used at the plants.

Comment CAL08-005

Next comment, Comment 4: PSD increment analysis significant impact levels are not applicable. This surprised me, because this first comment, in fact, it was identified in our scoping letter to the DOE, is that the fundamental problem with this whole air quality assessment that has been done to date is, it assumes that Mexicali is kind of a fictitious attainment area. The analysis that's been done by DOE's consultant is toward sources located in an attainment area. It's call: Prevention of Significant Deterioration. It's intent -- in fact, it's quoted in the document. It is for an attainment area. And its intent is to ensure that if you put a source in an attainment area, that you are not making the air considerably worse in that attainment area. Don't use it when the source is in a nonattainment area.

And in this document, the DOE, you do cite, you do use Mexicali ambient air quality data. You do show in the appendix that includes that information that it is a nonattainment area by U.S. standards. Obviously, it's not U.S., but if you were applying the Clean Air Act regulations, like the PSD regulation, you got to follow the regs. You can't just pick it and say: Because the PSD format allows these significant levels. We trigger those significant levels, we got to do something to mitigate, offset. We don't trigger the significant levels, we don't have to do anything. The point here is you can't pick and choose. If it's not in an attainment area, you can't use an attainment area standard to judge whether you need to mitigate.

Recommendation to this: Follow the correct application of Clean Air Act requirements and in doing so you will identify that we need NO_x and PM-10 offsets for these projects.

Response CAL08-005

Key Issue 2 discusses the appropriateness of using SLs and the inapplicability of the Clean Air Act (CAA) to the power plants in Mexico.

Comment CAL 08-006

Next comment. Straightforward: Include a summary of Mexican Ambient Air Quality standards in the document.

Response CAL08-006

Mexican air quality standards are not germane to the impacts in the United States. Also, the Mexico government has performed its own environmental review and has approved the power plants. Please see Key Issue 1 and Appendix J of this EIS.

Comment CAL08-007

Include a summary table. There are -- what's used in the document to provide an indication of air quality is annual average concentrations. And I think, really, what counts is the short-term peaks, that's where all the attainment violations occur. And what the document needs is a summary of the number of days where Mexicali is exceeding these short-term peak standards for ozone and PM-10 and CO.

Response CAL08-007

Table 3.3-3 showing National Ambient Air Quality Standards (NAAQS) exceedances and maximum air pollutant concentration measurements in Imperial County for O₃, CO, and PM₁₀ from 1987 through 2003 has been added to Section 3.3.2 of the EIS. Regarding the addition of similar data for Mexicali, please see the response to Comment 0004-005 and Key Issue 1.

Comment CAL08-008

Next comment, Comment 7, is: DEIS provides no verifiable information on what processes at the these two power plants, these wastewater treatment plants, are removing salinity, removing TDS.

This was actually a major issue during the hearing before the judge, and the question was: Claims are being made for a lot of salinity removal, 9 million pounds a year of salinity is being removed in the wastewater treatment plants at InterGen and at Sempra. And the question was: How? With what equipment? How is it being removed? We don't see any indication where you've got a process there that's specifically removing salinity.

And the experts for the companies claimed, correctly, that the salinity going into the treatment plant was approximately 1,200 parts per million, milligrams per liter. And in another declaration the claim was made that the salinity of the treated water coming out of the plant is essentially 1,200 milligrams per liter. Making our case, that we see no process where you are removing the salinity.

The company's own personnel and their own experts are validating that they are not removing salinity, yet in the EIS, after we have had all these declarations go back and forth, we get the exact information that we had in the original environmental assessment. We are removing 9 million pounds a year of salinity, and you have to accept our word on that. No description of the equipment that's doing it, how it's happening.

And this is absolutely fundamental, because one of the reasons, in my opinion, the plants weren't shut down last summer is because of this drumbeat claim again and again and again that major salinity removal is occurring in those wastewater treatment plants convinced the federal judge that these plants needed to keep operating from that clean-up guide. Yet we have expert testimony from the plants, themselves, indicating this isn't happening. So that's an issue that -- it will eventually get sorted out. Hopefully, we will get it sorted out in the final version of the EIS.

Response CAL08-008

Sections 2.2.2 and 4.2.4.1.2 now include a discussion of the wastewater treatment systems responsible for total dissolved solids (TDS) removal at the two power plants as summarized below. Also, please see the response to Key Issue 14.

The biological treatment reactor and clarifiers, which produce only a small decrease in TDS, may be the process being referred to in the comment, based on cited TDS values of around 1,200 mg/L for influent and effluent streams. However, additional and substantial TDS removal occurs in the next stage of the treatment process, the lime softeners.

The majority of the TDS removal cited in the EIS occurs in this step of the water treatment process. In this stage of the water treatment process, lime (calcium hydroxide) is added to the water causing precipitation of calcium and magnesium, as well as substantial amounts of alkali metals, heavy metals, and phosphate. The precipitated sludge is flocculated and separated from the water by sedimentation in a clarifier and sent to a filter press where it is dried for shipment off site. Effluent from this step has a TDS that ranges from about 900 to 1,000 mg/L.

The lime softeners are bypassed when the plants are in bypass mode, about 25% percent of the time for TDM as noted in the comment. The text added to Section 4.2.4.1.2 notes this and the fact that TDS removals would be reduced accordingly.

Comment CAL08-009

The Comment 8: Brine discharges from the plant exceed 4,000 per milligrams per liter salinity the limit prescribed for the Colorado River Basin and that these brine discharges must be mitigated.

This is reported in the DEIS, that the salinity discharges or the brine discharges at the river range between 4 and 5,000 milligrams per liter. DEIS, also, identifies that the Colorado River Basin Regional Board has 4,000 milligrams per liter ceiling limit for the basin. And in one of the expert declarations provided by one of the plant experts indicated that as the New River reaches its terminus near the Salton Sea, the concentration of the New River is 4 to 5,000 milligrams per liter. So the standards, if we are using that as a benchmark, we have issues with that direct discharge into the river being greater than 4,000 mg/l, and issues with the New River, essentially, exceeding 4,000 mg/l before it hits the Salton Sea.

And the -- two comments here, at least, as far as recommendations are, it needs to be mitigated. And one effective way to mitigate is eliminate those discharges to the river. And there are -- several plants are cited as, a little later, there's a cumulative impact analysis that includes three plants. It includes Blythe II, which is, as just mentioned, a 520 megawatt plant. How did they get rid of their wastewater? They send it to evaporation ponds. Not a great plan, but it beats discharging straight to a river. Salton Sea Geothermal Project, they reinject into the geothermal reservoir and eventually use some of that again in the power production.

The bottom line is that if this plant -- if these plants were located a couple miles north, they wouldn't be discharging directly into the New River their brine, and that needs to be mitigated. One way to really reduce the amount of mitigation that needs to be done is, again, to incorporate that parallel wet dry-cooling system. If you do that, reduce your wastewater discharge stream by up to 90 percent, you've got a lot smaller clean-up to get rid of, a lot smaller wastewater stream to get rid of.

So the recommendation: Mitigate wastewater discharges by retrofitting these wet systems to parallel wet-dry systems, and mitigate the remainder by what is known as the zero liquid discharge system. Whatever works. But don't discharge the brine directly to the river.

Response CAL08-009

Regarding the 4,000-mg/L TDS water quality objective, please see the response to Key Issue 15. In response to comments, a discussion of a zero-liquid discharge technology option has been added to Section 2.3.1.2 of the EIS. This option was considered but eliminated from further analysis because of its complexity in the context of a retrofit and its small expected benefits to the New River and Salton Sea.

Comment CAL08-010

Comment 9: Conformity analysis. This is a little bit of a technical issue, but whenever you have a federal action and a nonattainment area, you have to examine if and how that will impact the area and how you can eventually get it to attainment.

And this is one issue I had with the DEIS, as well, when it looked at the conformity analysis, which is much of the document looks at the economics, looks at the power plants, looks at the emissions, impacts. But when we talk about the conformity analysis, we switch gears again. Now we are just looking at the transmission lines. And we say: Okay, the transmission lines, well, almost no emissions there.

But the conformity analysis thresholds are 100 tons/yr NO_x, 100 tons/yr PM₁₀. If you isolate the power plants and they are not in that conformity analysis, you're in great shape because the transmission lines are not emitting anything.

And in this case the recommendation is: Include the power plants in that conformity analysis. When you do that, you trigger a conformity analysis without a doubt. You have hundreds of tons of PM₁₀ and NO_x from the plant.

And I do want to go ahead and read from the court order, the original one, May 3rd, 2003, and this is from the order, itself. The judge says: Here the scope of the action relates only to the transmission lines, but the nature of the action includes the full scope of the analysis, including the effects of the action. The nature of the action, therefore, includes the importation of power generated in Mexico. Indeed, to leave out the secondary impacts would be at odds with the purpose of the alternatives analysis, which is to provide a way for an agency to calculate and compare the various predicted effects of alternative courses of action. The analysis would be arbitrary in itself if it did not take into account all the effects of the proposed action.

And I think that's an excellent summary of why it's arbitrary when you're looking at the conformity analysis and then to say: All we're dealing with is the transmission line and we won't include the power plants. Because if we do, we trigger conformity and we have got to do the evaluation.

Response CAL08-010

Regarding the question of including emissions from the power plants in the conformity analysis, please see the response to Key Issue 17.

Comment CAL08-011

Comment 10. Another issue related to these declarations that went back and forth. One of the things that came up was ammonia emissions in the plants. Control systems are being used that require ammonia and ammonia comes out the stack. Ammonia can, in the atmosphere, combine and form a particulate. And so the question came up: How much secondary particulate PM₁₀ are we going to get from the operation of the plants.

And the plant's expert on this actually got down to calculating a number, 1.8 micrograms per cubic meter for 20 hours. This is an important number, because once we get enough of a push, we have to look at mitigating. And so we had that number and it was quoted in the final court order that the judge noted this number, and it was based on a very low level of emissions of ammonia. The objective of that declaration was to avoid getting a, basically, a shut down on the plants because of these additional secondary particulate emissions.

So to do that, the expert said: Well, we are not going to look at what's required under the Clean Air Act, which is you look at the potential to emit. If the court has an emission limit of 10 ppm and when you do your modeling and you look at 10 ppm, you don't say: Well, we are just looking at one year, catalyst is fresh, so we're going to assume it's only admitting 3 ppm. And we're going to assume we are only going to operate the plant 60 percent of the time or 70 percent of the time.

If you attempted to ration it down like that in a U.S. air quality analysis, unless the plant is taking a permanent condition which says we will not exceed 3 ppm, we will not operate more than 70 percent of the time, it wouldn't -- that approach wouldn't last five minutes. You wouldn't do an analysis based on that.

You go to the Clean Air Act. It's explicit. If your limit is 10 ppm, you run your analysis at 10 ppm. You are not taking any restrictions in your operating hours, you run it 8,750 hours a year. That's just background information.

Well, the good doctor runs the analysis. He assumes 90 tons a year of ammonia and he comes up with this number, approximately, 2 micrograms per cubic meter. The magic number is 5. If you hit 5, you have to do something. He comes up with 2. Well, no information is provided in the DEIS how many tons we are assuming in terms of ammonia. But when you look at the appendix, which tells you what the emission limits are and what the potential to emit is, it's approximately 500 tons. More than five times what the doctor used to do his analysis.

What the document tells us is not to worry, *de minimus*. The amount of secondary particulate we're going to get from ammonia is *de minimus*. And that it's going to be on the order of 1 microgram per cubic meter. Well, this document is telling us that we are going to be on the order of 1 with emissions that are five times greater than what Doctor Heisler, under oath before the court, said would be, approximately, 2 in June of 2003.

That's why I'm saying -- there's representatives here from Argonne, the consultant -- but there is such a disjunct between what the EIS is saying and what we know from an under-oath declaration, that that has to be addressed. If you simply say the model is different than the one that was used a year ago, it's roughly the same. And if you were just to extrapolate what it should be telling us, it should be telling us we're around 9 or 10 micrograms per cubic liter, not on the order of 1. So this will be a major issue here, this Comment 10 on secondary PM₁₀.

Recommendations are: We have a major disjunct. We have to get it sorted out as to what assumptions did the modelers make and we need to see those assumptions and we need to corroborate them. Why is there such a difference between these two.

Response CAL08-011

Key Issue 10 provides a full response to the commentor's concerns.

Comment CAL08-012

Comment 11: DEIS must define offsets as necessary mitigation for PM₁₀ and NO_x emissions and describe the specific offsets that will be obtained.

Following on the earlier comment that just the misapplication of the PSD regs is really what has led to this concept that we have some kind of increment that if we stay under we don't have to mitigation, which is a constant theme between the EA and the draft EIS.

There is some good information provided in the EIS of what offsets are available. There's a description of 20 miles of road paving in Imperial County, 650 tons. That's nearly the tonnage of PM₁₀ that's coming from the two facilities' export component. That's a good start.

Road paving, one attraction, this is just a personal observation of the road paving end, especially if any of it goes on on the Mexicali side, it's pretty easy to verify. You don't have to have a lot of administrative references to go out and see if a road is paved and is staying paved.

The document also notes, correctly: NO_x and PM₁₀ mitigation opportunities in Mexico could also prove to be beneficial and cost-effective. These might include road paving, replacing older automobiles and buses, and converting fuel used in brick kilns to natural gas. I agree 100 percent. There's excellent opportunities in Mexicali. Very cost-effective.

And, also, I want to point out that these plants are competing in a power market in California. And it was a surprise to learn last summer that these plants are actually considered local California facilities. They are under the control of the California Independent System operator. Plants in Arizona and Nevada are not. These facilities are considered local California plants. They compete with the same power markets as other merchant plants that are built in California.

One of those merchant plants that is about to commence construction is the Otay Mesa near San Diego, which is two miles north of the border. Otay is going to be paying approximately \$30 million for PM₁₀ and NO_x offsets. Pretty innovative offsets, as well. Also interesting is the dry-cool plant, and it is the standard of comparison for other plants that are competing in that market that are located in this area.

Blythe II, the project I mentioned earlier, is still in permitting, but the CEC, California Energy Commission, staff is recommending that be a dry-cool plant. And so it's important to put this in context, that the plants that are competing with these plants are either seriously looking at dry cooling or are dry cool and they are paying a lot of money for offsets of their emissions.

Response CAL08-012

Regarding the recommendation that the EIS must require offsets of power plant emissions, please see the response to Key Issue 3. The EIS identifies potential offset opportunities in Section 2.4. Any decision by DOE to implement Alternative 4 or to otherwise place conditions in a Presidential permit will be made in the Record of Decision (ROD).

Comment CAL08-013

Another issue that was dealt with earlier will be dealt with some more, I think, is that DOE must include impacts from power plants supplying the second circuits on the Intergen and Sempra plants in the cumulative impacts analysis.

And, again, as the folks here know, the transmission lines were built. Currently those transmission lines are moving the power from, approximately, 600 megawatts of power production on each line. That's a single circuit. They're double-circuit systems, so they can handle double that amount of power. The analysis only looks at that one circuit, presuming that the second circuit will never been used, at least, it won't be used in a time period that matters.

And the EIS relies solely on information, from what I could see, that was provided by Sempra that says: We have no plans to construct a second plant anytime soon. And I definitely challenge that information, because obviously they have a strong financial interest in not indicating that there would be a second plant built anytime soon, because any additional emissions -- we double the emissions on that line, then the pressure, in terms of emissions to mitigate and offset, are going to be that much greater.

So I think it's useful that they have contributed to you some information, but that's definitely not where the analysis of cumulative impact stops in determining whether there will or will not be a second plant using the second circuit in the next ten years. And I think the 10-year time period that the EIS identifies is cumulative impact, foreseeable future, that's fine. 10 years is fine. That's long enough.

The DEIS only cites three power products in that cumulative impact analysis, saying that this is all we see happening. One is Blythe, which I mentioned, the geothermal project Salton Sea or Salton Sea No. 6 geothermal. And then another project in Yuma, the Wellton-Mowhawk 600 megawatt project.

According to the California Energy Commission, both Blythe II and Salton Sea, the two California projects, they are supposed to be on line in 2006. Two years. They are -- the geothermal project is permitted, the Blythe project is in the final stages of being permitted. Wellton-Mowhawk project was approved a year ago by the Arizona Corporation Commission. It's expected to be on line in 2006 or 2007, if it's built.

So the three projects that are identified in the EIS are all U.S. projects and they are all, at least, slated to be built in the next 2 to 3 years, leaving us 7 to 8 years of, apparently, no activity anywhere in the region that could impact the cumulative impact analysis for this project.

That's where this issue of Executive Order 11214 [12114] come in, but we're not looking at things going on selectively in Mexico. Because, if you look at what's going on in Mexico, there's more activity down there. The Mexico Secretary of Energy at the invitation of the Secretary of Energy, United States, Spencer Abraham, gave a presentation in Washington on December 17th, I think, at the LNG Ministerial Summit.

And he was there to underscore Mexico's dramatic need for LNG and gas because of the huge power construction boom that will be occurring in Baja, California over the next ten years. He had specific numbers. 2055 megawatts of additional power projects in Baja over the next 10 years. That's a doubling of their power-generation capability, including these plants that are exporting to the United States in 10 years.

In another venue I had a meeting with the Sempra representative about a month-and-a-half ago where they indicated that, we're talking LNG at that point, but they were talking about: No, no, this is not for California. Half of this LNG will be going to Baja when the plant starts up in 2008. That's four years from now. And by the middle of the next decade, all of it will be going to Baja, California.

We are talking about volumes of gas, if half of it goes to Baja, that's almost a tripling of gas use. And all of it will be used in power plants, essentially. So we've got the Secretary of Energy in Mexico telling us: We're going to double our plant output in Baja, California in 10 years. We've got Sempra telling us: We are triple our gas sales to Baja in four years and we are going to, by a factor of five or six, in 10 years. And we know that virtually all this gas is going to power plants.

We have another document, that was actually submitted earlier, where -- it's a CFE presentation a year ago -- where they identified on their transmission expansion plan, 2003 to 2007, Sempra's second 600-megawatt project here in Mexicali by 2005. That's not going to occur. They haven't done the permit yet, they haven't broken ground. But, to me, that's a sufficient amount of evidence to indicate we are going to get more projects and they are going to be using those transmission lines.

So the point here is that all of that information has been provided to the DOE as attachments to this document and the analysis needs to include the second circuit being utilized in the cumulative analysis.

Response CAL08-013

Regarding the use of the second circuit on the transmission lines, please see the response to Key Issue 16. The DEIS concluded that there were no foreseeable plans to construct additional power plants in the study area (based on the criteria listed in the introduction of Section 5.3, "Reasonably Foreseeable Future Actions"). A new section has been added to Section 5.3.7, "General Trends in the Imperial Valley-Mexicali Region," to

acknowledge the evidence that the demand for electrical energy in Mexico is growing and that over the next 3 to 10 years (i.e., the time period beyond which foreseeable plans can be obtained), it is probable that more power plants will be constructed in Mexico. The locations of any future plants are not clear, however. Currently, there is no specific evidence that any plants would be built near enough to Imperial County to cause additional impacts there.

Comment CAL08-014

And the final comment is: The EIS needs to recommend permit conditions. The presidential permits need to have environmental conditions in them. And the case study for this is what happened with InterGen's EAX server when we went through -- some of us were in the hearings that we had last summer where the original EA assumed that this turbine was equipped with an advanced NO_x control system, all the modeling assumed that it was equipped with advanced NO_x control system. The judge assumed it was equipped with the system. We looked at all of this data about impacts, in part, because it was presumed that the system was on there, of the issue of shutting down the plant went in favor of the plant. They weren't shut down.

And, by chance, it became apparent that the unit wasn't equipped with an SCR. I know we talked about last summer is: Wait a second. If Mexico has their own authorities, Mexico inspectors are out there checking these facilities, they are on top of it, there's no need to have any conditions in these presidential permits, that's an issue for another party.

Well, obviously, that party didn't get the word. And I think one of the issues here is that there's no crosstalk of any kind between U.S. authorities and Mexican authorities. The best I could tell, they weren't aware that that was a requirement for that facility, at least to hear them tell it.

So I think, as a result of that incident, which I think was fairly embarrassing for InterGen and everybody involved, given that an SCR is a fairly big system and it's hard to miss when it's up and running, that we need permit conditions. We need permit conditions that include monitoring and reporting that the facilities are actually meeting their commitments and it needs enforcement.

And I have some suggested permit conditions here, and I think that will be the extent of my comments. One is that all of the PM₁₀ and NO_x emissions from the facilities, approximately, 700 tons of PM-10 and, approximately, 400 tons of NO_x need to be offset in Imperial County and, where appropriate, in Mexicali, as well.

That the DOE have a condition that must state clearly that you will enjoin the use of the transmission lines if the monitoring and reporting information reveals that the facility is not meeting the commitments that they made in the EIS, in the document. If they say there's going to be 4 ppm NO_x, 4.5 ppm NO_x and we are getting information that's showing that the SCR is down and they are operational, the transmission line is shut off until they get it fixed.

Everyone on this side of the border is flying completely blind. We have no idea if the SCR is operational, if they are meeting -- if there is no reporting going on, there is no data passing hands.

One of the frustrating issues that occurred with this incident with the EAX turbine is, suddenly they got it installed, and they are on line. I don't think the judge was provided with the information that indicated that they were meeting their emission limit. We sure weren't. It's just they say it's in, they're on, we are good to go. We are still completely blind. We don't know what level they are operating at. So we need, especially with this incident, to have conditions in there. It's a case study of why you need good monitoring reporting and force issues with a permit.

The water issue should be kept simple. Right now the estimated use of water is 11,000 acre-feet a year. Cut it by 90 percent. 1,100 acre-feet a year, split it appropriately between the two terms. Use the water anytime you want, but that's your limit. You have a water meter. You exceed it, you are in violation, transmission line is shut down. Let them take care of the details of what system to build.

And, finally, the issue of discharging high salinity wastewater to the New River. Stop it. Prohibit it. Install a system that takes care of that issue, and that those are -- the hammer is, if it doesn't get done, they are denied access to the transmission lines.

I would like to read just one other thing that came out of the court order, which I think is an excellent observation by the judge: Although defendants argue that international sensitivities preclude conditioning the permits from being a reasonable and feasible alternative, such a discussion belongs to the EA's alternative analysis rather than a litigation brief. Furthermore, the court is unconvinced that the federal government's jurisdiction to ameliorate negative environmental effects within the United States necessarily offends international principles of law. The condition would not be a direct regulation of Mexican power plants; those plants could still choose to sell power to the Mexican markets or transmit their power via an alternate route rather than meet the condition.

Absolutely right. If the proponents have a problem with reducing water usage, with offsetting air quality impacts, with stopping direct discharge of brine to the New River, they can choose to sell their power to the 1 Mexican market or go another route. They do not have to do this. And it is not imposing a burden on Mexico. It's simply insuring that those plants are up to par on environmental issues.

So that's it for my comments. I do have one more observation, and that is that I am in the engineering business and I do subscribe to a bunch of different magazines, and I subscribe to Gas Turbine World. I can see a couple people who must subscribe to it as well up here in the audience, probably not most of you.

And there is an interesting comment. This is Gas Turbine World, April/May 2004. This is the most recent edition. It came out a couple months ago. This is kind of a promo for -- that was put in by Sempra Energy. Last page. Mexicali plant spurs surge in capacity. And just a few paragraphs on the advantages of Mexico, starting about three paragraphs in: Other plants stationed in Mexico sell power primarily into the U.S. grid with gasping supply [gas being supplied] from indigenous U.S. suppliers. Strong economic advantages for the Mexican programs include availability of low-cost labor and avoiding some of the stringent environmental

rules for new U.S. facilities. Another overriding factor is that under Mexican regulations permitting for a new plant takes only six to eight months compared to much longer periods, usually twice that, to gain approval for U.S. projects.

Basically, you know, a free-marketer's dream description as to why you should be locating in Mexico to sell power into the U.S. market. And so I think that it's just critically important that we have conditions in this permit that map out exactly how we are going to know that these plants are meeting their obligations and that the Department of Justice or the Department of Energy do exactly what they said they were going to do back in January if that turbine wasn't shut off, which is you are going to lose access to the transmission line. That got a response. Anything less will not get a response.

Response CAL08-014

Regarding the commentor's request for conditioning the Presidential permits, please see the response to Key Issue 3.

COMMENTOR CAL09: Denine Dawson

Comment CAL09-001

As a resident of Calexico, we can see the pollution in our area. We can't see the mountain areas. They also turn them off at times. And when they do, the air does clear up so you can see them. And we have noticed an increase in upper respiratory disease. I don't have to go through all the medical problems that we have had in our community, they have already been mentioned.

But I am here as a concerned citizen, and I am pleading that you have these -- I know they are not going to be shut down, at least, for them to abide by all the state mandated laws, such as a filtration system, and that will improve our environment and help us eat, sleep and breathe better in this community.

Response CAL09-001

The power plants are regulated by Mexico. As described in the EIS, with the exception of an oxidizing catalyst on the plants at the LRPC, the export turbines are currently equipped with emissions control systems the same as or similar to what would be required if the plants were built in the United States.

COMMENTOR CAL10: Margarita DeNecochen

Comment CAL10-001

I want to tell you that I'm a life-long citizen of Calexico. And for many, many years, many years, just coming down the mountain I would observe, gosh, you know, I'm going into my valley now

and it was a terrible smell. It was the feed lots, the New River, the burning fields, the planes spraying insecticide. Sometimes I would go through the 8 and I could still be interrupted with the planes. So now with the new power plants, you can imagine how much more we are going to get.

And another thing that's bothered me about the air quality and all this that's happening, is that what about cancer? We are talking about asthma, and I did have seven children, six that have terrible asthma. Terrible asthma. And so I know what these children are going through. And, thank God, in my days raising them, I did not know they could die. Somehow I always cured them the old fashion way and hoping, you know, that rubbing them and the whole bit would bring them back. And everything was okay. But now that I hear that they can die, it's been this really terrible fear.

But something must be wrong with our air if we don't have any more crickets. They sprayed them away. We don't have any more mosquitos. I can sit outside and I don't get mosquitos. And I'm wondering, you know, all these cases of cancer that are coming up, are they victims of all that terrible spraying they did to get rid of all those crickets? So I don't know. I'm scared now, I really am, of what's happening and what's in the air.

And Senator Diane Feinstein in her news of January 20th, 2004, Intergen agrees to speed up installation of pollution control technology. But, you know, I read on to say down below that hopefully by January/April of 2005. You know, that's a long time away. For me it is. So I don't know if they are going to hear us, I really don't. They haven't heard us on the New River. It was in the 60 Minutes. They didn't do anything about it. And so, please, try and do what you can for us.

Response CAL10-001

Data are available on the air quality in Imperial County; the EPA collected these data to show whether the county is in compliance with Federal and State air quality standards. These data are summarized in Section 3.3.2 of the EIS and show that the county is not in compliance with standards for PM₁₀, O₃, and carbon monoxide (CO). Elevated levels of these pollutants have been associated with several adverse health effects, such as asthma and respiratory-related death. However, they have not been associated with cancer. There are many different sources for these pollutants (e.g., feedlots emit ammonia [NH₃], which can lead to increased O₃ generation; large areas of dry soil in agricultural fields or unpaved roads release PM₁₀; automobiles emit CO). The power plants also emit these pollutants, but careful study indicates that they are minor contributors to the total amount emitted in the county, and that emissions of these pollutants from the turbines addressed in the EIS would increase the number of asthma hospitalizations in Imperial County by less than one case per year. (Please see the responses to Comments 0008-001 and 0009-005 and Key Issue 13.)

Cancer risks from exposure to hazardous air pollutants (HAPs) emitted by the power plants are presented in Section 4.11.4.3 and Appendix H of the EIS. Such risks were found to be below a SL of 1 per million.

Exposures to several pesticides (some whose use is now banned or restricted) have been shown to increase the risk of cancer. It is beyond the scope of this EIS to address health effects associated with exposures to non-power-plant-related chemicals. Local, State, and Federal environmental and health agencies (e.g., Federal Agency for Toxic Substances and Disease Registry [ATSDR]) sometimes undertake these types of studies at the request of concerned citizens.

COMMENTOR CAL11: Robert DeNecochen

Comment CAL11-001

My comment is most of the community -- you mentioned, like, e-mail communications. This a very poor community. A lot of people don't have e-mails.

And more importantly, I mean, I don't mean to be cynical, but this is all politics. You know, who makes the contributions. We all know Diane Feinstein wrote the letter. We all know who gives money to Diane Feinstein. We all know who is behind the plant in Mexico. And, unfortunately, the residents here, we don't have much political power. We can't give big checks to politicians. And we're kind of, no pun intended, in the dark about a lot of these issues.

And I think it behoove the Department of Energy to spend more time doing more press releases of information here in the valley as part of the community service to what is going on with the environment, what is going with energy and so forth. You guys have to make a more concerted effort public relations-wise in the valley to keep the residents, both bilingual, English and Spanish, because we are primarily a large Spanish-speaking community on both sides of the border, to keep us abreast of issues and not just think of the Department of Energy as some bureaucracy tucked away in D.C. listening to Enrons and their ilk of the world for advise on what to do with policy. We're just low-income residents here and we don't have access to these uni-politicians. So look out for the little guy once in a while.

Response CAL11-001

As stated in Sections S.1.1 and 1.1.1, DOE and BLM chose to prepare a full EIS (this document) in part to increase opportunities for public participation in the process. That process is summarized in Section 1.3 of the EIS. DOE and BLM provided Spanish-speaking interpreters at both the public scoping meetings held in November 2003 and the public comment meetings held on the DEIS in July 2004. The meetings were held in Calexico and El Centro, California.

COMMENTOR CAL12: Norma Aguliar

Comment CAL12-001

First of all, thank you, I am glad I was able to attend this meeting. First of all, like you mentioned earlier, it was posted in the news that it was at 9:00. And just by coincidence I came to pay my water bill and I found out that it's going to happen tonight. So I am here.

I followed the issue through the newspaper and I agree that there needs to be more outreach to the community, because ultimately we are the ones that are being affected. We live here.

Response CAL12-001

Please see the response to Comment CAL11-001.

Comment CAL12-002

I invite you, or any of your representatives, to go down Second Street and go where our old Vaughn Market parking lot is and smell the ammonia that comes through from the New River. I invite you to go to the east side of our community where the river runs by residences and smell. The smell is there, too. Again, I just remind you that we live here and it impacts us.

Response CAL12-002

The EIS analyzes the impacts to the water quality of the New River in Section 4.3.4.

EL CENTRO PUBLIC HEARING

Commentor EC01: **Congressman Bob Filner** (His statement as read by Inez Gonzalez)

Comment EC01-001

Imperial County's air is under siege. The county currently has the highest childhood asthma rate in the State of California, partly because of pollution from power plants in Mexicali. As the Department of Energy considers Presidential permits for Intergen and Sempra to run transmission lines from their power plants into the United States, it must closely examine the environmental and health impact of these power plants.

The Department of Energy must insist that Sempra and Intergen finance sufficient pollution reduction efforts in Imperial County to offset the emissions generated by your power plants. These companies should have no more than two years to offset all their PM-10s and NO_x emissions by paving roads and supporting other projects in Imperial County.

Response EC01-001

Regarding the question of DOE requiring power plant emission offsets financed by the power companies, please see the response to Key Issue 3.

Comment EC01-002

The Department of Energy must also insist that Sempra and Intergen add dry-cooling systems to their plants in order to minimize use of huge quantities of low salinity water destined for the New River and Salton Sea. The diversion of this water shrinks the Salton Sea and leads to increased PM₁₀ emissions from the exposed shoreline.

Response EC01-002

Regarding the question of DOE requiring the addition of dry cooling systems to the power plants, please see the response to Key Issue 3. The EIS analyzes the impacts of wet-only and wet-dry cooling systems in the New River and the Salton Sea in Section 4.2. Dry-only cooling is considered technically infeasible as described in Section 2.3.1 of the EIS. Please see also Key Issue 6. Regarding increased shoreline emissions of PM₁₀, please see the response to Key Issue 17.

Comment EC01-003

To assure the respiratory health of children and others in Imperial County, as well as our neighbors in Mexicali, the Department of Energy must also ensure vigorous and comprehensive monitoring of the emissions and air quality. The Imperial County Air Pollution Control District should receive regularly updated information and analysis of the air quality.

The Department of Energy, Sempra, Intergen and all of us who live at the border have an opportunity to work together on both sides of the border to combat the dirty air that is poisoning our children. I urge the Department of Energy today to seize this opportunity.

Response EC01-003

Regarding the question of DOE ensuring the monitoring of (power plant) emissions and air quality, please see the response to Key Issue 3.

COMMENTOR EC02: Joe Maruca, County Supervisor, Imperial County

Comment EC02-001

There's a reason why those power plants are here. A number of reasons, really. If you take a look at the recent history of the construction of power plants, it doesn't take a rocket scientist to see they pick areas like this, where there are people of color, people of low income and no political clout, as well as, no population. And they will continue to do that.

Response EC02-001

The analysis of environmental justice issues in the EIS was performed according to guidelines established by the CEQ, with an analysis undertaken at the relevant geographic scale (the block group level), by using the appropriate reference populations (the state total low-income and minority populations). Analysis of noise and dust issues along the route of the transmission lines used a 2-mi (3-km) corridor as the relevant affected area, and the analysis of air quality issues used the county as the appropriate scale of analysis.

The analysis found that temporary noise and dust emissions from construction and long-term noise effects from EMF would not produce high and adverse impacts on the general population along any of the transmission line routes. Construction and operation would not, therefore, adversely or disproportionately impact low-income or minority populations, regardless of the concentration of these populations in the vicinity of the transmission line corridor.

Analysis of air quality impacts compared modeled increases in ambient air concentrations of criteria pollutants due to power plant emissions over a grid of receptor locations in the county and found that increases were below EPA SLs used as a benchmark of impacts. Since the plants would not produce high and adverse impacts on the general population in the county, they would not adversely or disproportionately impact low-income or minority populations, regardless of the concentration of these populations in the county.

Comment EC02-002

And then you have to understand that there will be other plants in Mexico in -- as I understand it, another plant or two planned for Mexicali, as we speak.

The amount of gas that that 36-inch, 34-inch pipeline is capable of carrying is barely touched at this point. The pollution already drifting across the border is scientifically documented and causing us huge problems here. Not only with our families, not only with our children, not only with our schools, but even now it's going to affect our industries, because we are a serious non-attainment area classified by the Federal Government. We are not sure what we are going to have to do with that.

So even before the power plants were build we had a problem. Now the power plants are spewing that crap into the air, it's exacerbated.

And as I read the San Diego Union this morning, there's a huge microchip center that's going to be built down there. And those are huge users of water and polluters. So this is going to continue.

Response EC02-002

The general trend of increasing industrial development in the Mexicali region is discussed in Section 5.3.7.2.3.

Comment EC02-003

What you do -- what the Department of Energy does with this sets a template, because there are a series of plants across the border planned. This will set the template. If we make them pay now, what they do with the next plant and the next plant, whether it's in Texas, whether it's in New Mexico, whether it's across the border in Arizona, the template will be set that you cannot spew horse manure in the air and expect our children and people to breathe it. It's not acceptable.

Response EC02-003

The EIS is meant to be specific to the applicants' proposals and is not meant to be a template for any possible future proposals for this or any other region.

Comment EC02-004

I first heard about it -- and I resent the way they came in here like cavaliers. I was sitting in my desk, a rooky County Supervisor and somebody throws this huge book on my desk. And I said: What is that?

That's an environmental study for the 36 pipeline coming through your county.

Oh? Does anybody know anything about this?

No. This is it. You know, it goes through mostly federal property with a little bit of county property and a little bit of private property. And so I started reading this. They shoved this down our throat, the Federal Government. No consultation, no nothing. So we sued saying: Well, the results of the gas that goes into Mexico causes the effect on the air. We lost.

After the Federal Government signed a presidential permit, like, zip, despite our protests. After the California State Land Commission signed a permit, like, zip. Like we didn't even exist. Our great benefactor, Cruz Bustamante, comes down, shmoozes around, and says: I have no choice, I've got to sign it. It was bought and done and paid for before we even had a chance. They're only a bunch of poor Mexicans down here, what the hell do they mean. They don't vote. They only have a 150,000 people. We'll poison their air, the hell with them, and we get the power that they need in the metropolitan areas. And that's not right. Not only is it immoral, it's illegal.

And I question how much money crossed hands in Mexico, because they have one of the most polluted cities around. That air down there. Have you ever been to Calexico? Have you ever been to Mexico, to Mexicali, and breathe that air? And yet they let them put that plant up there with prevailing mostly westerly winds. It's a crime.

Response EC02-004

Comment noted.

Comment EC02-005

There were several lies that were perpetrated while this whole thing was going on. Number one, they said the offsets of these plants will be taken care of by industry. We're going to convert -- Mexican industry will convert to gas. Horse manure. Didn't happen. They made no marketing efforts to do this. And I have friends of mine, environmentalist down there, and God believe it -- I'm not an environmentalist. I'm a right-wing Republican. I feel like a traitor talking about this, really, but this transcends politics and philosophies. They made no effort to market that gas down there. It was just a bunch of baloney.

Number two, if you have problems, if you cut this gas off, we'll ship oil up and we'll fuel these with oil. Well, that's a lie, too, because you couldn't get enough oil to do that. Next, if we can't sell -- what we were trying -- we were working with Feinstein and everybody to, perhaps, tax this or force them in some way to clean up the scrubbers or whatever down there.

Next, they said: Well, if we can't sell it to the U.S., we'll sell it to Mexico. And that's a lie, because there's not the infrastructure to move it south. There's not enough lines down there to take it anywhere.

Next, they were supposed to put state-of-the-art scrubbers on after a lot of beating up. And they -
- I don't now if they are on yet.

Response EC02-005

Sempra and Intergen have stated that they could operate their plants on alternative fuel sources (DOE 2001). The installation of selective catalytic reduction (SCR) scrubbers for nitrogen oxide (NO_x) emissions at the LRPC is discussed in Section 4.3.4.4 of the EIS. All gas turbines included in the proposed action currently have SCR systems installed.

Comment EC02-006

Well, what they've got to do -- and the other issue that's been talked about is water. Water is the -- the water that goes to the New River, flows into -- is a very vital element of the Salton Sea, which is under siege. The huge percentage of that water is going to be too huge, too large a percentage of that water is going to be used, is being used to cool those down. And you don't necessarily need that and you can do it in other ways. We've got to stop them from using that water, diverting the water before it gets to the Salton Sea. We have got to make them do offsets here.

When I originally talked to Sempra representatives, I said -- the guy was, I forget his name, Bob, whatever was his name, he was a real slick guy. I said: Bob, build your plant in Imperial County. I'll be the first to support you. Pay your U.S. taxes. Pay prevailing wages, U.S. wages. Do the offsets in the United States.

You know, well, that, of course, doing it in Mexico for obvious reasons. They don't have to do any of the above. So let's force them now not to use that water, let's force them to do offsets here in the United States.

Obviously, we're never going to be able to stop these plants from operating. They are in Mexico. We can do something about: If you don't do this, you can't move this across the grid. And the only thing I think we can do right now is offsets. Let's make them do offsets here.

Response EC02-006

Regarding the question of DOE and BLM requiring emissions offsets as a condition of the Presidential permits, please see the response to Key Issue 3.

Comment EC02-007

I would submit, in closing, no way in hell that those plants would be built in Tijuana with that pipeline going through San Diego without offsets and all kinds of things happening over there, because those people have political power and we don't and that's where[why] they're here. And they ought to pay the price for that.

Response EC02-007

Comment noted.

Comment EC02-008

My son wakes up in the morning and starts coughing. If you go to the elementary schools around here you will see the cabinets full of asthma medicine, cough medicine, allergy medicines. I don't blame that all on Sempra and Intergen, but that's another ingredient. So let's do something to help stop this now.

Response EC02-008

The pollutants PM₁₀ and O₃ have been associated with increases in asthma incidence and respiratory deaths. However, the amounts of these pollutants emitted by the power plant turbines that are the subject of this EIS are low relative to other existing Imperial County sources (Section 4.4.4.2 of the EIS). Careful study indicates that these turbines are minor contributors to the total amount emitted in the county, and that the emissions of these pollutants from the turbines would increase the number of asthma hospitalizations in Imperial County by less than one case per year. (Please see the responses to Comments 0008-001 and 0009-005.)

COMMENTOR EC03: Brad Poiriez, Imperial County Air Pollution Control District**Comment EC03-001**

First and foremost, the ICAPCD, which is Imperial County Air Pollution Control District, continues to feel very strongly that the operation of the two power plants and their associated transmission lines will have an adverse impact on air quality in Imperial/Mexicali valleys, and this is why we adamantly disagree with the DOE's proposed action of granting presidential permits to the power plants as their projects are currently designed.

The ICAPCD favors a Modified Alternative No. 4 Proposal for the granting of the permits that would require mitigation and offset measures for the increased emissions associated with these plants.

The ICAPCD believes that DOE should ensure that off-site mitigation measures should take place in Imperial County. As a matter of fact, ICAPCD worked with DOE in suggesting several measures that should be considered in that fact.

The ICAPCD believes this is necessary to continue our goal of improving the air quality and protecting the health of the residents of Imperial County.

Response EC03-001

DOE will decide in the ROD what if any mitigation measures Intergen or Sempra should observe as a condition of their respective permits. Please see also Key Issue 3.

Comment EC03-002

Number one, a comprehensive evaluation of the air quality of Imperial County and Mexicali addressing all, and I emphasize all, monitoring data used to evaluate the compliance data with both areas with the National Ambient Air Quality Standards, NAAQ, not just an annual arithmetical means used to attempt to diminish the magnitude of the air quality status here.

Over the past several years monitoring data has shown several, even hundreds, of violations of the National Ambient Air Quality Standards for Mexicali. And it should be pointed out that Mexicali is also in violation of the Mexican standards, which are similar to the U.S. Federal standards. The levels of pollutants in Mexicali has been characterized as critical by the Mexican authorities. And I touched on that a little bit further in my formal comment letter on Page 3.

The public should be presented with reliable, clear monitoring data in order to make an accurate judgment of the air quality where they live. We need the real factual data to be out there so these people can make a qualified judgment of where they are going to live.

Response EC03-002

Information on historical exceedances of the NAAQS in Imperial County has been added to Section 3.3.2 in Table 3.3-3. DOE does not evaluate air quality impacts in Mexico, please see the response to Key Issue 1.

Comment EC03-003

The approach used by DOE to evaluation ozone formation is suspect. Background data on VOC is needed and DOE analyzed five years of ozone and NO_x monitoring data and concluded that ozone levels mainly occurred at lower NO_x levels and the plots used indicates a condition in which introducing more NO_x reduces ozone formation.

DOE's conclusions characterized Imperial county/Mexicali as being VOC limited, and which by introducing more NO_x, there would be no increase of ozone is ludicrous when, in fact, the reverse could be true.

We are truly dumbfounded by these conclusions and seriously hope that the DOE does not mean by not installing selective catalytic reduction, SCR, to control NO_x at the turbines could, in fact, resolve the ozone problem in Mexicali and Imperial Valley. That would be ludicrous, like I said before. It's just inconceivable.

Emissions inventories data shows that the level of emissions from VOC is approximately three times higher than the level of [emissions] for nitrogen oxide. This would not lend itself to characterize the Imperial County/Mexicali area to be VOC limited. The emission inventories numbers show contradiction to the DOE ozone formation assumptions. You're contradicting yourselves.

Response EC03-003

Please see the response to Key Issue 12.

Comment EC03-004

DOE also attempted to compare impacts to EPA significant levels for the NO_x, SOs, CO and PM₁₀ emissions produced by the power plants. By using 40 CFR 51.165(b)(2) DOE concluded that the maximum ambient concentration of air pollutants in Imperial County associated with the power plants are below significant levels established by the EPA; therefore, stating the impacts on air quality from the power plants would be minimal.

By using this section of the CFR, DOE assumed that Mexicali is a hypothetical attainment area. The ICAPCD wants to stress that 40 CFR 51.165(b)(2) is not applicable to new sources in a nonattainment area, Mexicali, that are impacting an adjacent nonattainment area, Imperial County. And, in fact, the next paragraph of the 40 CFR states so explicitly.

Due to the fact that the Mexicali power plants are located in a nonattainment area and their emissions will impact an adjacent nonattainment area, the ICAPCD feels the correct approach for evaluating emissions impacts should be the Clean Air Act, Section 173. This section identifies the requirements for new and modified sources located in nonattainment areas. Section 173 (c)(1) requires that any new or modified source of emissions located in a nonattainment area to offset their emissions for which that area is nonattainment.

Response EC03-004

Regarding the use of SLs in the EIS, please see the response to Key Issue 2.

Comment EC03-005

We feel that the DOE must rigorously follow the requirements in the Clean Air Act and not simply choose the requirements that they feel will achieve the end result that DOE is apparently looking for, no significant impact.

Response EC03-005

Please see the response to Key Issue 2.

Comment EC03-006

I want to stress, again, ICAPCD believes there should be mitigation measures implemented to offset the increased emissions and these measures should be memorialized in the presidential permits and ensure that the off-site mitigation measures take place here in Imperial County.

To close, we look forward to reviewing a much more sound final EIS that will fully address all of our concerns as outlined in our formal response letter. For the health of the residents of Imperial/Mexicali Valleys and for the continued efforts to improve air quality in Imperial County, we insist that full mitigation of the impacts of these projects be fully mitigated, including placing provisions in the presidential permits for monitoring, recordkeeping and enforcement provisions based on our experience with Interger's failure to install SCR on one of the two turbines, as Joe mentioned earlier; and the fact that Mexicali authorities were, apparently, unaware that Interger had even had an obligation to install and operate SCR on the unit. The permit conditions must clearly state that monitoring data should be supplied to the EPA and the ICAPCD.

For issuance of the presidential permits, we urge DOE to implement a version of Alternative No. 4 that would require full mitigation and offset of all emissions and that these offsets take place in Imperial County.

Response EC03-006

Regarding the question of conditioning the Presidential permits, please see the response to Key Issue 3.

COMMENTOR EC04: Robert Ham, Imperial Valley Association of Governments

Comment EC04-001

I want to begin by telling you that it isn't the intent of the people in Imperial Valley to deprive the coastal cities of badly needed power. It is our intention to ensure that some sense of environmental justice prevails in this process.

Response EC04-001

DOE has evaluated potential environmental impacts from the proposed transmission lines throughout the EIS.

Comment EC04-002

When DOE was last here for scoping meetings, several of our elected officials spoke to you and urged the adoption of Alternative 4 in the interest of seeking environmental justice. We presented a strong rationale for adopting this position.

Response EC04-002

The commentor's stated preference for Alternative 4 is noted.

Comment EC04-003

We have documented that, but for these transmission lines, the power plants would not have a market and, therefore, would not operate. Accordingly, you must consider the operation of the power plants and their resulting emissions as part of the project you are reviewing.

Response EC04-003

The EIS evaluates the impacts in the United States of power plant operations in addition to the impacts of the transmission lines. Semptra and Intergen have assured DOE that they would seek to identify new transmission paths and electricity markets in the event these transmission lines are not built.

Comment EC04-004

Because we live in an area that is considered nonattainment for a number of pollutants, a condition that will only be exacerbated by the operation of the power plants, the DOE must consider requiring mitigation for the added pollutants in our air as a result of this project. Environmental justice considerations would necessitate that you order full mitigation for the added pollution in Imperial County and in the Mexicali community.

Had these plants been built three miles to the north, state and federal environmental law would have required that the emissions resulting from the plants be fully mitigated before the first kilowatt was ever produced.

There's numerous so-called scientific assumptions in your draft report that use such tortured logic as to defy any sense of reality. The technical experts from the ICAPCD will take you on a step-by-step tour of these attempts to twist and bend information and facts to achieve a predetermined answer. This self-serving study completely ignores Judge Gonzalez's order to perform a truly unbiased review of the environmental impacts of this project.

In conclusion, the economic development future, not to mention the immediate health of our residents, depends on you coming to the conclusion that the impacts of this project must be fully mitigated by the acquisition of pollution offsets.

We would further encourage you to ensure that any such mitigation offsets be measurable, enforceable and preferably located in the United States portion of the shared air basin. Any offsets that are obtained in Mexico should be subject to inspection and verification by the ICAPCD.

Response EC04-004

DOE believes its methodologies, data, and findings are correct as well as reasonable. Regarding the analyses performed in the EIS, the methodologies used in the EIS analyses are identified separately in each impact area discussion. Key assumptions and inputs are also identified.

COMMENTOR EC05: Frank Popejoy, El Centro Chamber of Commerce**Comment EC05-001**

We tried to deal with the gas pipeline coming through. And, as others have said, they just did it anyway. And they said if we don't have that, we will just burn diesel. A lot of threats and innuendos and it was, like, well, it doesn't matter what we say or what we are trying to do here. We are trying to protect our air quality.

Response EC05-001

Comment noted.

Comment EC05-002

And our Chamber, Steve Burstoff, came and gave us an overview and looked at the Calexico area, the prevailing winds, the way they come from the different parts of the valley, bring this all in. We are in a bowl. It stays in here. It just doesn't go away. If we burn fields, whatever we do, it just goes around the valley. So we have to watch this bowl very carefully.

Response EC05-002

The meteorological conditions prevailing in the Imperial Valley are described in Section 3.3 of the EIS and were taken into account in the analysis of air quality impacts in Section 4.3 of the EIS.

Comment EC05-003

And the whole time that you are here and you go before the hearings, and you try to get things done, and all the things we did to get the geothermal going; and, meanwhile, just like that, they put these plants over here and we go through the environmental studies, do all these hearing, trying to get good, clean energy going and they just put these in. That's just like red flags going up all over, to me. It's just happening whether we say anything or not.

Response EC05-003

As stated in Sections S.1.1 and I.1.1, DOE and BLM chose to prepare a full EIS (this document) in part to increase opportunities for public participation in the NEPA process.

Comment EC05-004

So it's not good. You guys are aware of that. I hope you get good input because the asthma rate here and when you drive down Highway 98 on some days and you look across the border, it's unbelievable. You know, you don't have to be a rocket scientist to see what's going on. The pollution is bad enough. And how you can take these facts and figures and say that that doesn't make a difference, when, really, we need to be cutting back, not adding to this.

Response EC05-004

Comment noted.

COMMENTOR EC06: Mike Giorgino, El Centro**Comment EC06-001**

In reading this environmental impact report, I find it very fascinating. I think there's a great deal of truth in these pages. I think it honestly tells the whole story. And unlike my friend, Joe Maruca, I am not a Right Wing Republican, I'm just a main stream Republican. And I feel that I am qualified to gently chide the Bush Administration in the way this particular issue has been handled here in the valley. Because reading this report, what we learn is that the presidential permits were granted based upon the very, very narrow consideration of the impact that those lines would have on the land that they would pass through.

But all of the determinations about the impacts on the air quality, the PM₁₀ emissions, the impacts on the New River and the Salton Sea were not done before those presidential permits were granted. Nor were Mr. Maruca and the other four supervisors here briefed or brought in on the process so that they could weigh in. So that they could analyze this, see what the impacts would be and have their say.

Response EC06-001

After the court ruling, DOE and BLM chose to prepare a full EIS (this document) in part to increase opportunities for public participation in the NEPA process and to examine potential impacts in detail.

Comment EC06-002

We can't allow these plants to operate unless they are going to adhere to U.S. air pollution standards. It's been said here already this morning that we've got to look at this just as if these plants had been built here in Imperial County, Mr. Ham said that. What would the rules be. What would be the requirements for mitigation. Back in December of 2001, after these presidential permits had been issued, the Imperial Valley County Board of Supervisors voted unanimously to demand the best-available control technology be installed in all of these units. The last part of this resolution stated: Until such time as the California best-available control technology is installed and maintain on all units to reduce emissions to meet California standards in order to help the health of the residents in Imperial and Mexicali Valleys, they would oppose these plants.

Response EC06-002

U.S. air pollution control standards do not apply to the power plants in Mexico. However, the commentor's preference for best available control technologies (BACTs) on the power plants is noted.

Comment EC06-003

Now the representative from the Imperial County Air Pollution District talked about the alternatives. There are four alternatives laid out in this document. The first alternative is: No action, deny both permit and corresponding right-of-way applications.

The second alternative is the proposed action by the Department of Energy, which is to grant one or both of the permits and corresponding rights-of-way without any further action on the parts of Sempra or Intergen.

I don't think either of those first two alternatives are viable or realistic. I think there's been too much investment on the part of these companies to build these plants down in Mexico. They are already operating. And I don't think it's realistic to say no. But at the same time, I think it's outrageous for the federal government to grant these permits without them taking any mitigation efforts or coming into compliance from a technology standpoint so that they adhere with U.S. Air Pollution Standards.

Now there are a third and fourth alternative listed here. The third alternative is alternative technologies. And we have heard two alternative technologies talked about today. One is the scrubbers. Now, as I followed this issue, my understanding is that there has been a difference between the attitude of the two companies. That the Sempra plants were designed from the beginning to have the proper scrubbers and that they were installed.

But the Intergen plants tried to get away or around that requirement. There was pressure from Congressman Duncan Hunter, the former representative of this valley, and Senator Diane Feinstein. And then Intergen agreed they would put them on, but they have still not fully complied.

And then mitigation measures is the fourth. And that would be that these plants would be granted the permits, but that they would have to provide off-site mitigation measures to minimize the environmental impacts.

What I'm here to recommend today is a combination of Alternatives 3 and 4. I recommend that when you go back and talk to your superiors, that what you discuss with them is the idea that we have two different companies and that they be decoupled from one another in the consideration. They are separate transmission lines, they should be separate permits and they should be treated in accordance with what they are willing to do to, number one, improve their techniques; and, number two, to mitigate the impact on this valley.

Response EC06-003

The commentor's recommendation for adopting a combination of Alternatives 3 and 4 is noted. Regarding the status of the LRPC export turbines, SCR is currently installed on both turbines. With respect to the separate projects, the EIS presents the alternatives as granting one or both permits; it includes both projects in a single study, however, for the sake of efficiency and consistency. Because one permit is granted, it would not

necessarily mean that the other one would also be granted. DOE has the discretion to issue permits to either, neither, or both Sempra and Intergen.

Comment EC06-004

Another thing that has to be done, and there could be reasonable -- a reasonable time frame to come into compliance, but has to be done is air water cooling for these plants. What we learned in the last set of hearings is that Mexico already has gas turbine plants that are air-cooled. That the country of Mexico, in fact, is in the forefront, since they have new plants going in, we in the United States have older plants, they are in the forefront of some of the newest technology in that area.

Mr. Maruca spoke about the terrible impact that these plants will have on the air quality, especially without the scrubbers. But there's another consideration, and that is that this water cooling process not only will lower the level of the Salton Sea, which over time could increase the, you know, could and will increase the PM₁₀, the dust, but it also has another health effect and that is it raises the temperature of what's essentially raw sewage that comes into the valley through the New River. That's a health hazard.

There's a Congressman that's talking about building a park over the New River down there. I don't want kids playing over heated sewage.

Response EC06-004

DOE considers several cooling technologies in the EIS; see Section 2.3 for descriptions of dry-only, wet-dry, and wet-only technologies. DOE discusses all effects of the power plants on the New River, including effects on temperature, salinity and other water quality parameters in Section 4.2. The EIS notes in Section 4.2.4.1.2 that power plant operations would result in a temperature increase of, at most, 0.5°F (0.3°C). Such an increase would not increase health effects related to the River. Salinity would also increase slightly. However, power plant operations would improve slightly some water quality parameters such as phosphorous loading, biological oxygen demand (BOD), and chemical oxygen demand (COD).

Comment EC06-005

I think that we want to encourage more electrical generation. I agree with the sentiment that it would be a good thing if an electric power plant were built in the Imperial Valley. But we have the technology to minimize the air pollution effects. We have the technology, it's very simple technology, to mitigate these effects, paving and what have you.

So I call on the federal government to do the right thing. You told the truth. There's a lot of truth in this document. It's pretty honest. And I bring this problem right back to your door, because these things were not thought out when you initially granted those permits. Sempra Energy and Intergen relied upon those permits to proceed with what they were doing without any of this being discussed with them.

So in conclusion, I call upon this agency and President Bush to do the right thing for the people in this valley. I ask you to take back with you the strongest recommendation from me that you not grant these permits without requiring scrubbers, a reasonable transmission time to air cooling, and complete and full mitigation for the impacts on this valley.

Response EC06-005

The commentor's recommendations are noted.

COMMENTOR EC07: Marilouise Hurley**Comment EC07-001**

And I belong to a lot of organizations that are involved in Imperial County, including the California Women for Agriculture, and I was the chairman of the Ag in the Classroom Program teaching all of our young people about agriculture. That's our main way of earning a living in Imperial County. And so we need good air, beautiful air for growing our crops. And we grow the winter crops, the winter vegetables and we do have crops that grow all year round.

I'm also a pilot. Have been flying for 33 years. Have 3500 hours flying time and fly in Imperial Valley and Mexico a great deal of the time. And since these two power plants have gone into production, I see the emissions coming from the plants coming into Imperial County. Even in the wintertime, when we don't have the strong winds from the south, even just light winds will blow that smoke into Imperial County.

And then driving on Interstate 8 toward Yuma, it's really bad around Holtville. Every day, every day, when we have those little light winds from the south. Now we're in the monsoon era and we are going to be having these strong winds all summer long.

I was happy to see that they have shut down the plant on the west side for now, until they probably get the scrubbers. And that was really turning out a lot of bad smoke into the valley.

Response EC07-001

DOE has exhaustively analyzed the air impacts from the power plants in Section 4.3 of the EIS. DOE has described the wind patterns in Imperial Valley. Please see Figures 3.3-2 through 3.3-11 in Section 3.3.1.2 for seasonal wind rose information. DOE used the wind rose information in its dispersion modeling that underlies the analysis and findings in Chapter 4. DOE concluded from its analysis that the incremental air impacts from the power plants would be below levels considered as thresholds of human health impacts. With the exception of water vapor, the gas-fired plants do not emit visible emissions from their stacks. When certain meteorological and stack conditions coincide, water exiting the stack in the form of water vapor may be visible.

Comment EC07-002

I'm also concerned about the transmission lines. Belonging to American Association of University Women when San Diego gas and electric was involved in possibly putting a nuclear plant over in the Blythe area and then running power lines through here, we were very concerned about that big power line coming through the valley. And they decided to do the single pole, steel poles through the agricultural area and then they wanted to run the power line right down Interstate 8. We have a beautiful desert and it's so pretty to drive Interstate 8 out of the valley, and we do not want that power line right down Interstate 8.

I see now in this book that they only talk about the transmission lines coming into the valley to the Imperial Valley Substation. And then what happens to them? This is going to be huge, three huge big transmission lines eventually. Where are they going to go after they reach the Imperial Valley Substation? We hope those plans are not to put those power lines right down Interstate 8.

Response EC07-002

Power from the two proposed transmission lines would be distributed over the existing 500-kV Southwest Power Link. No plans for additional transmission lines in Imperial County that would take power from the Imperial Valley Substation have been identified in the cumulative impacts analysis in the EIS.

COMMENTOR EC08: David Weldon

Comment EC08-001

I just want to let you guys know that, a lot of -- as far as public health, I just could not believe the number of kids that have asthma. This is not a made-up issue. You know, how people will be against an issue, but I was just --I was really amazed. You know, I coached football and I was never used to holding seven and eight of the little inhalers and having kids running around when you make them do laps and, actually, having to stop and take an inhaler break. I'd really make sure that you look at that data before those permits are officially given. With that said -- and I really hope that you look at that data.

Response EC08-001

It is clear that there is a high incidence of asthma in Imperial County. A reference (Collins et al. 2003) to a study showing the high county rates of childhood and adult asthma hospitalizations for the years 1995 through 1997 has been added to Section 4.11.4.2 of the EIS. A reference (Thurston and Ito 1999) to a summary of studies documenting an approximate 18% increase in the incidence of respiratory-related hospital admissions for each increase of 100 parts per billion (ppb) in the airborne O₃ concentration has also been added to the EIS (Section 4.11.2.2). Table 4.3-7 of the EIS indicates that O₃ levels might decrease slightly as a result of power plant operations, so

it is unlikely that O₃ associated with the power plants is contributing to the asthma problem in Imperial County.

A reference (Pope and Dockery 1999) to a summary of studies documenting an approximate 3% increase in the incidence of respiratory-related death, hospitalizations, lower respiratory symptoms, and asthma for each 10- $\mu\text{g}/\text{m}^3$ increase in airborne particulate matter has also been added to the EIS (Section 4.11.2.3). As stated in Section 4.4.4.4.2 of the EIS, the maximum modeled increase in ambient levels of PM₁₀ associated with the TDM and LRPC turbines that are the subject of this EIS is 2.45 $\mu\text{g}/\text{m}^3$. The increase in PM₁₀ levels is estimated to cause a maximum of two to three additional hospitalizations for asthma per year in Imperial County (see the response to Comment 0008-001 and Key Issue 13). This is likely to be an overestimate, because the 2.45- $\mu\text{g}/\text{m}^3$ modeled increase is not an average exposure value to populations in Imperial County. Rather, it is the maximum expected concentration increase at any location in the county at any time over a 5-year modeling period based on historical meteorological conditions. Typical or average concentration increases at a given receptor location in Imperial County would be expected to be far less than these estimates, and for a significant fraction of time, they would be expected to approach zero. Please also see Key Issue 18.

Comment EC08-002

And, number two, I'll cut it short, I don't understand how, when the first people said to our government in this process of granting permits and having power lines going across, and they say: Well, we are going to be within three miles of the border; and they are saying: Okay, it's very simple, what you need to adhere to the U.S. pollution standards, is how you can have a company, two -- well, two companies, but how can people go three miles south and spew -- and actually have running power plants that are not up to U.S. standards? That is just crazy to me.

My boy has been in the hospital. We give him preventive asthma breathing treatments every morning and every night. He's a healthy little eleven-month-old boy. I do not want more pollution. What I want is I want a permit -- now, we all know that we need power. What I want is I want for when the permit is given, is I want it enforceable that those plants will be operated at U.S. standards.

Mitigation and offsets, I'm sure that a good lawyer will probably say that better than me. I am just hopefully, and when he learns how to run, I can keep him out of New River. I cannot stop the air pollution from coming over. That's something I cannot stop.

I hope that you listen to -- a lot of the people have different issues, but for the overall health and safety. But I just cannot believe that our government would allow people to just knowingly build three miles south of our border and understanding and not hold them accountable to our standards. That absolutely must be dealt with. And that is for the quality of our life.

Response EC08-002

U.S. clean air laws do not apply to Mexico. The United States, however, can impose conditions to the issuance of permits in its discretion to protect the public interest. Please see Key Issue 3.

COMMENTOR EC09: Vivian Perez, Clean Air Initiative**Comment EC09-001**

The main reason I am here is to express the concerns of the Clean Air Initiative members. Our main concern is the impact that the air pollution -- excuse me -- the air pollution is caused by the power plant, the power plants in Mexicali.

The adverse effect it has on the health here in both regions, actually. Just last year alone there were almost 4,000 ER visits from children with asthma. This is not including the adults or other pulmonary diseases nor does it include the alarming increase in pulmonary diseases in Mexicali.

Response EC09-001

It is clear that there is a high incidence of asthma in Imperial County. A reference to a study showing the high county rates of childhood and adult asthma hospitalizations for the years 1995 through 1997 has been added to Section 4.11.4.2 of the EIS. A reference to a summary of studies documenting an approximate 3% increase in the incidence of respiratory-related death, hospitalizations, lower respiratory symptoms, and asthma for each 10- $\mu\text{g}/\text{m}^3$ increase in airborne particulate matter has also been added to the EIS (Section 4.11.2.3). As stated in Section 4.4.4.4.2, the maximum modeled increase in ambient levels of PM_{10} associated with the TDM and LRPC turbines that are the subject of this EIS is 2.45 $\mu\text{g}/\text{m}^3$. The increase in PM_{10} levels is estimated to cause a maximum of two to three additional hospitalizations for asthma per year in Imperial County (see the response to Comment 0008-001 and Key Issue 13). This is an overestimate, because the 2.45- $\mu\text{g}/\text{m}^3$ modeled increase is the maximum increased concentration averaged over 24 hours at any location on the modeling grid (i.e., in the border region) at any time over a 5-year modeling period. The annual average concentration increase at any receptor location in Imperial County, which should be used in health impact estimates, is 0.11 $\mu\text{g}/\text{m}^3$ (Table 4.3-4). Thus, the expected increase in asthma hospitalizations is less than one case per year.

There are many different sources for the pollutants that are associated with asthma and respiratory symptoms (e.g., large areas of dry soil in agricultural fields and unpaved roads release PM_{10}). It is beyond the scope of the EIS to address health effects associated with exposures from other sources and exposures to non-power-plant-related chemicals. It is also beyond the scope to address health effects occurring in Mexico. Please see the response to Key Issue 1.

COMMENTOR EC10: Larry Dawson**Comment EC10-001**

At the last meeting, I also indicated that it was going to take a lot of courage on the part of the federal government type, such as yourselves, to take a position against these power plants. It appeared to me then, it appears to me now that the fix has been placed very much against the citizenry of Imperial County on this issue, and it's very unfortunate.

Response EC10-001

Comment noted.

Comment EC10-002

I, too, have a son. Fortunately, my son now, who had asthma, he is now 18-years-old, but I can remember when I was trying -- my wife and I struggled with him in the evening times, primarily, year after year with coughing fits, doing everything we can just to make sure he got through the night. It was a very bad situation for us, and I'm sure a number of families in the valley are facing the same situation now. I would hate to have to be raising young children now with the type of pollution that's coming from those power plants.

The book that you sent us, the people that participated earlier, shows a number of pictures of this valley and pictures of the power towers. And I would -- I am sure if you look at those pictures now and compare them with what the pictures of the towers would be currently, because those pictures show fairly pristine shots of those -- of the power towers. And now when those plants are going, I dare say you can barely see the mountains in the background, the San Diego, the Lagunas, if you are looking at the power towers from the angle that those pictures were taken.

I would challenge you, when those power plants are running, to drive 98, the highway that runs close to the border, and look in either direction, you know, surrounding directions, just to visually inspect what the smog looks like, because you can really notice it. It's not something that's imagined.

My sister-in-law used to live up in the Riverside area. Used to, not to defame another area, she used to call San Bernardino, Scum Bernardino just because of the air quality that was in that general area.

Now, although it's hot here in the summertime, at least, to a large extent we could see blue sky in the summertime. And now that's very much endangered and it's very depressing.

Response EC10-002

Regarding the commentor's concerns about asthma, please see the response to Comment EC09-001. The poor air quality in the valley mentioned in the comment is noted in Section 3.3.2 of the EIS.

Comment EC10-003

This is not a situation where, at least, I'm saying, not in my back yard. Okay. I think from all the comments here, we're just so frustrated by the fact that we could understand if this was USA compliant, but it's not. And please try everything you can to make the plants USA compliant.

I agree with everything that the other speakers just said virtually. The one thing I would say, though, in addition, that any type of restrictions placed on the power plant should have a continuing enforcement mechanism. It should be continuing. Just because they agree to do it now, what guarantees do we have that a year from now they are not going to be compliant. It's another country with a whole other system of laws.

Response EC10-003

Regarding the recommended continuing enforcement mechanism for power plant emissions, please see the response to Key Issue 3.

Comment EC10-004

One of the things the report mentions, and I just think it's ludicrous, is that you are not looking at this project as one project. You are sort of taking one piece out of it at a time and saying: Well, this is compliant and this is compliant. The gas pipeline is compliant, the power lines are compliant environmentally, and that's ridiculous. It's one project. And the assumptions that are being made that it's not, that it should be -- that each thing should be looked at individually, is incorrect. And the assumptions that that's based on are totally fallacious, as Mr. Maruca pointed out.

That plant wouldn't exist but for the gas pipeline and the power lines coming across the border now. It's all one integrated project. And that's how it should be looked at.

Response EC10-004

The EIS analyzes the joint impacts of the transmission lines and the power plants in Mexico. Regarding the inclusion of the natural gas pipelines that supply the plants, please see the response to Key Issue 7.

Comment EC10-005

And the last speaker mentioned just how ridiculous it is with respect to how could our government allow this thing to happen when it's three miles south of the border. It's all one air shed. And if our government doesn't look out for us, who is? The Mexican government isn't going to. We need to show the Mexican government, we need to set the example here, because they are not.

Calexico is adjacent to Mexicali. We are all adjacent to Mexicali. Mexicali dwarfs us in size, dwarfs us in population. Travel to Mexicali, if you have a chance this evening after your

Calexico meeting, to see the sheer size of Mexicali. It's a major urban area compared to everything else here. We are just small town. But you need to see it. You need to see the environment around Mexicali and how far it stretches.

Response EC10-005

The EIS considers the shared air shed in the analysis of air quality impacts.

COMMENTOR EC11: Bonnie Garcia, Assemblywoman, 80th Assembly District
(Her statement as read by Erica Harrold)

Comment EC11-001

The residents of the Imperial Valley and Mexicali are separated by nothing more than a political line in the sand and sometimes a metal fence, yet they share much more, including a common history, culture, and environment. It is the environment, however, that often draws the most attention, with water, air, and energy issues being discussed in many different circles and at all levels of government. It is this combination that brings us here today.

The Department of Energy hearings being held in El Centro and Calexico are the result of a legal action. A federal court determined the government overstepped its bounds in allowing construction of transmission lines through Imperial County without following the proper procedures. These transmission lines provide the state with power from American-owned plants in Baja California.

Absent from the process for permitting the construction of these lines was the voice of the local community.

Now that we have been provided the opportunity, I encourage residents, representatives of local governments and private industry in Imperial County to voice their opinions about this issue. As a member of the Assembly Select Committee on Air and Water Quality, I hold a special interest in ensuring the voice of residents in this county, where the hospitalization rate for children with asthma is more than twice the state average, is heard.

With its tremendous economic and population growth, California has flirted with an energy crisis for several years. Despite efforts to develop green and renewable energy sources within the state, we continue to have a demand that exceeds supply, forcing us to purchase power from outside our borders. While this is not the desired solution to our sustainability, it is necessary to keep California functioning in the coming years.

Merely recognizing the situation in which we find ourselves does not permit us to compromise the health of our residents and neighbors. Private industry is constantly asked to be a responsible citizen, government must do the same as a steward of the people's trust.

Response EC11-001

As stated in Sections S.1.1 and 1.1.1, DOE and BLM chose to prepare a full EIS (this document), in part, to increase opportunities for public participation in the NEPA process.

COMMENTOR EC12: Carlos Acuña**Comment EC12-001**

I think we can get a little more anecdote than is being brought to you. First of all, there's Vulcan logic that says: The needs of the many outweigh the needs of the few. We live in the United States of America. This is a constitutional democracy. Here majority rules, but we always have to respect minority rights. And due to that fact, I urge you to, please, not allow this to turn into an atmospheric love canal. I think we are at the crisis point right now.

At what point do anecdotes become statistics, become epidemics. So far I have heard some people say we have a 16 -- I have read this in places other than this, that we have a 16 percent childhood asthma rate. I think that's a disgrace. I don't know when CDC, Center for Disease Control, is going to come down here, but I think the court should be aware of the statistic.

Response EC12-001

Please see the responses to Comments 0008-001 and 0009-005 and Key Issue 13 on the relationship of power plant emissions to the asthma incidence rate in Imperial County. The increase in PM₁₀ levels from the power plants is estimated to cause a maximum of two to three additional hospitalizations for asthma per year in Imperial County; this is also probably an overestimate.

There are many different sources for the pollutants that are associated with asthma and respiratory symptoms (e.g., feedlots emit NH₃, which can lead to increased O₃ generation; large areas of dry soil in agricultural fields and unpaved roads release PM₁₀).

Comment EC12-002

Again, I have friends -- and one of the ladies who was a pilot here told you anecdotally what's happened. When you are flying down you immediately notice we live in a bowl. This place happens, by geographical accident, to trap air, to trap the pollutants. After a while, if you are coming down by plane, many come down from the mountains of Baja and see nothing but a dust blot. Sometimes it looks like a doughnut-shaped thing, I have heard from friends, four miles wide. And what is its nucleus? What is the center? The InterGen/Sempra plants.

And Sempra, theoretically, is supposed to have these scrubbers, and yet that seems to be the center of this doughnut, this polluting doughnut.

Response EC12-002

The background to the meteorology and air quality of the region is described in Sections 3.3.1.2 and 3.3.2 of the EIS. As noted in Section 2.2.2 of the EIS, all export turbines at both power plants are equipped with SCR scrubbers to reduce NO_x emissions, while the Semptra turbines are also equipped with oxidizing catalysts to reduce CO and volatile organic compound (VOC) emissions.

Comment EC12-003

So I, please, urge you let's, ah man, let's just not sacrifice the few for the needs of the many. I know corporations have a right to their profit. I'm for it. I've got a retirement that is based a lot on all the profits from a lot of people in whom I invest, and that's fine. But not at the cost of public health.

Response EC12-003

Comment noted.

COMMENTOR EC13: Susan Massey**Comment EC13-001**

I have been impressed that all the testimony has been against letting these, letting these power plants operate under rules other than what they would expect to be operating on if they were on the American side of the border. And, I guess, what I feel that this is maybe a microcosm of what's going on in the United States. Is democracy really being effective in our own country?

If the people of our country, our elected officials and citizens, feel so strongly about something in the end is it going to come down that in spite of all our concerns as citizens and as elected officials, that in the end it's the power companies who win, who are so power, if you will, they are going to win just because they are them and the rest of us really don't count?

So I hope the Department of Energy looks at this, that they realize that democracy is really on the line here.

Response EC13-001

Comment noted.

COMMENTOR EC14: Patricia Petree**Comment EC14-001**

First of all, I would like to say that I think the United States government is an enabler. We are enabling companies to contribute to the pollution of our air quality, as well as the air quality in Mexico.

Response EC14-001

The EIS analyzes the impacts to air quality in Imperial County of the proposed action and alternatives.

Comment EC14-002

But be aware that the citizens of Imperial County do care about our air quality and also that of Mexico, our neighbors. The poor air quality doesn't stop at the international border, but encompasses all of this valley that we all call home, and it is our home.

Response EC14-002

The shared air shed is considered in the analysis of air quality impacts in Imperial County.

Comment EC14-003

I am an elementary school teacher and I am also a witness to the high increase of asthma and allergies in our schools. The school offices have an entire wall of little cubbies where they keep the little inhalers for all the students under lock and key. And every year the little wall is becoming a second wall.

Response EC14-003

Regarding asthma incidence, please see the responses to Comments EC08-001 and 0009-005 and Key Issue 13.

LETTER, FAX, AND E-MAIL COMMENTS

**COMMENTOR 0001: D. Rick Van Schoik, Managing Director
Southwest Center for Environmental Research and Policy**

Comment 0001-001

We have read the health impact assessment and are discouraged to find that populations in Mexico are not considered in the analysis. By only considering the US populations located miles away the assessment ignores and implies a callousness about the health consequences to the much larger and closer populations that are most at risk. We endorse and promote the concept of a politically-neutral common air basin when and where meteorology and topography clearly define that the same air is breathed by citizens of different jurisdictions.

Like other organizations, we are extraordinarily sensitive to sovereignty issues but believe the spirit of cooperation and collaboration is forwarded by considerations of needs and impacts to neighboring jurisdictions. Both the United States and Mexico have standards for emissions and ambient air quality as well as the means to enforce them. While the actual standards and mechanisms may be slightly different, the concern for public health is paramount.

Transboundary Environmental Impacts Assessments (TEIAs) offer the opportunity to understand, minimize, monitor, and mitigate across international boundaries. The failure of DOE to scope these important components of the overall analysis reflects a disregard for the significance of international relations, health, and overall energy security. The California Resources Agency is setting a excellent TEIA example by considering all impacts to Mexico in the restoration of the Salton Sea. In addition, the trinational Commission for Environmental Cooperation has had, as a collateral mission, since the passage of NAFTA over ten years ago, the task of facilitating such studies and deliberations. The federal government can promote good will by engaging in such transboundary studies.

We urge DOE and its consultants to recalculate the health risk assessment with consideration of populations in Mexico. We believe Mexican environmental impact assessments are available and should be consulted. In doing so, the DOE will not only improve conditions in Mexican populations along their northern border, but will strengthen relationships to improve environmental health and quality for U.S. communities along the border with Mexico.

Response 0001-001

The two cited examples have broader objections than the EIS, which is concerned with the impacts in the United States of construction and operation of two electrical transmission lines that cross the U.S.-Mexico border. DOE and BLM's interpretation of applicable regulations and guidelines is that NEPA does not require an analysis of impacts in Mexico of the operation of the power plants located there that would use the transmission lines. For further explanation of this interpretation, please see the response to Key Issue 1.

**COMMENTOR 0002: Timothy B. Jones, Director of Public Works
Imperial County Public Works Department**

Comment 0002-001

An encroachment permit shall be secured from the Department of Public Works should Mount Signal Road be used for access to site.

Response 0002-001

The project applicants have obtained all necessary permits for the construction of the transmission lines.

Comment 0002-002

With regards to Paving Road under the Mitigations Measures No. S.3.4 (pg. S-21); No. S5.9 (pg. S-39); No. 4.1.6 (pg. 4-6); No. 4.2.6 (pg. 4-27); No. 2.4 (pg. 2-38); No. 4.3.6.1 (pg. 4-58); No. 4.9.6 (pg. 4.87), please contact this Department for the priority list in which these roads should be paved.

Response 0002-002

DOE would contact the Department of Public Works to obtain its priority list for road paving in the preparation of a Mitigation Action Plan should the mitigation alternative be identified in the ROD.

Comment 0002-003

Please be advised that a Record of Survey may be required per the California Professional Land Surveyors Act. The applicant can contact Charles Lovett, Survey Crew Manager of this Department for further information.

Response 0002-003

The project applicants have performed and recorded all necessary surveys for the construction of the transmission lines.

**COMMENTOR 0003: James F. Devine, Senior Advisor for Science Applications
U.S. Department of the Interior, U.S. Geological Survey**

Comment 0003-001

The report does not mention the potential effect of project activity on noxious weed invasion. This issue is significant because the introduction of weedy plant species, which are notably difficult to eradicate once established, can accompany vehicular construction activity. The

process can occur as vehicles become weed vectors and because heavy vehicles tend to destroy soil structure at the site of use. This activity causes drastic loss of fragile original soil mixture and opens new pathways for weed establishment; the resulting condition could mean a mix of noxious weeds very different from naturally induced weed populations (Westbrooks, 1998). The discussion of these weed distributions in the document should contribute to pro-active project procedures for maintaining weed-free vehicles and for mitigating invasive weeds if they become introduced.

Response 0003-001

A discussion of the potential of transmission line construction activities to introduce invasive plant species has been added to Section 4.4.4.1 of the EIS.

Comment 0003-002

Page 3-15, Chapter 3 Affected Environment, Section 3.2 Water Resources, Section 3.2.1 Surface Water Resources, first full paragraph:

The paragraph states an “average” concentration of selenium of 21 micrograms per liter. The USGS suggests that a statement be added to indicate that the average value is based on detection values only. One common approach for describing the variability of water-quality data having censored values (detection and non-detection) is to present all the data in terms of percentiles. In this manner, the variability of the entire data set for the period of record is addressed.

Response 0003-002

The text referred to in Section 3.2.1 has been modified in accordance with the comment.

**COMMENTOR 0004: Bill Powers, Chair
Border Power Plant Working Group**

Comment 0004-001

Comment 1: DEIS Must Explicitly State That the New River Flows North into the Salton Sea National Wildlife Refuge So Reader Understands Significance of New River Water Quality Issue

The DEIS first alludes to the fact that the New River flows northward in the middle of a paragraph on p. S-27, stating “*Since the New River gains in flow as it flows northward...*” The north flow direction of the New River needs to be made clear much earlier in the Summary section of the EIS. Only the most diligent reader who was not already familiar with the flow direction of the New River would glean from the Summary section of the DEIS that the New River does in fact flow into the United States.

Recommendation 1: Include on p. S-17 a paragraph that explains that the New River flows northward into the Sonny Bono Salton Sea National Wildlife Refuge. That would put discussion about water resources in a clear context for the reader. There would be no U.S. impacts if the river flowed south. Include a sentence identifying how close Interger's *La Rosita Power Complex* (LRPC) and Sempra Energy Resources *Termoeléctrica de Mexicali* (TDM) wastewater discharge point is to the U.S. border. Figure S-7 (p. S-18) implies the discharge point is as little as a few hundred feet from the border or less. Add a flow direction arrow to the New River in Figure S-7 so the reader has a visual clue to the flow direction of the river.

Response 0004-001

Text explicitly stating that the New River flows north into the Sonny Bono Salton Sea National Wildlife Refuge has been added to Section S.1.3 of the EIS. Figure 5-8 (formerly Figure 5-7) and Figure 2.2-17 have been modified to show the direction of flow of the New River. These figures are not to scale. They are, however, annotated to indicate the discharge points for the power plants at about 6 mi (10 km) from the point where the drainage canal joins the New River in Mexico, within 100 yd (91 m) of the border (Kiernan 2004).

Comment 0004-002

Comment 2: DEIS Cites Incorrect Interpretation of Executive Order 12114 as Basis for Determining that Project Impacts in Mexico Are Outside the Scope of the EIS

The DEIS cites (p. S-24) Executive Order (E.O.) 12114 as justification for not considering impacts in Mexico. Section 1 of E.O. 12114, titled "Environmental Effects Abroad of Major Federal Actions," explicitly states, " . . . *this Order furthers the purpose of the National Environmental Policy Act and the Marine Protection Research and Sanctuaries Act and the Deepwater Port Act consistent with the foreign policy and national security policy of the United States....*" Section 2-3 states: "Agencies... *shall establish procedures... take into consideration in making decisions concerning such actions, a document [EIS] for (b) major Federal actions significantly affecting the environment of a foreign nation not participating with the United States and not otherwise involved in the action.*" In what way has Mexico participated with the United States or otherwise been involved in this action? The TDM plant and LRPC's EBC turbine are not physically connected to Mexico's power grid. The LRPC and TDM plants are categorized as California power plants by the California Independent System Operator.¹ All power from these plants is sold in California. Mexican authorities were unaware that LRPC has committed to install selective catalytic reduction (SCR) NO_x control systems on the EAX export and EBC turbines as a condition of startup, as represented by DOE in the original Environmental Assessment prepared for the project. Judge Gonzalez has also stated an interest in understanding project impacts in Mexico.

Section 2-4 (c) of E.O. 12114 is instructive: "*Nothing in this Order shall serve to invalidate any existing regulations of any agency which have been adopted pursuant to court order or pursuant to judicial settlement of any case or to prevent any agency from providing in its procedures for*

measures in addition to those provided for herein to further the purpose of the National Environmental Policy Act and other environmental laws, including the Marine Protection Research and Sanctuaries Act and the Deepwater Port Act, consistent with the foreign and national security policies of the United States.”

E.O. 11214 [12114] provides no justification for ignoring an assessment of project impacts in Mexico in the EIS and explicitly recognizes the authority of a Federal court to assess project impacts on foreign nations.

This is particularly important in this case given the very high rates of pulmonary sickness in Mexicali. On pg. 4-98 of the DEIS it is noted in passing that asthma is of particular concern in Imperial County. No mention is made of the fact that the problem is at least as severe, and on a much greater scale, in Mexicali. BPPWG provided the DEIS preparation teamleader (Ed Pentecost, Argonne National Laboratory) with detailed information on the level of pulmonary sickness in Mexicali and Imperial County in February 2004 via U.S. Mail. The document is titled “*Understanding Air Pollution and Health in the Binational Airshed of the Imperial and Mexicali Valleys — Summer 2003*” and was funded by the Southwest Center for Environmental Research and Policy (San Diego). Table 3 of the document is titled “*Number of Hospitalizations for Asthma, Pneumonia, and Acute Respiratory illness by Season of the Year, 1997 to 2000 — Mexicali Valley and Imperial Valley.*” This information must be included in the EIS to provide a complete picture of the public health situation in the immediate vicinity of the transmission lines and the connected actions.

¹June 2003 Simoes Supplement Decl. ¶ 23.

Recommendation 2: Delete the reference to E.O. 11214 as justification for ignoring an assessment of project impacts in Mexico in the EIS. Include information on rates of pulmonary sickness in Mexicali in the EIS.

Response 0004-002

Regarding analyzing impacts in Mexico and the interpretation of E.O. 12114, please see the response to Key Issue 1. Regarding Mexico authority over the power plants, Appendix J has been added to the EIS to provide a summary of the permitting in Mexico that was required for the power plants. The document cited above is now cited in Section 4.11.4.2 of the EIS.

Comment 0004-003

Comment 3: DEIS Fails to Analyze the Preferred Parallel Wet-Dry Cooling System Alternative

The DEIS dismisses dry cooling (pg. 2-36) as a viable cooling alternative by noting that dry cooling imposes a 10 to 15 percent efficiency penalty on the steam cycle. This is a misleading statement. The annual average efficiency penalty imposed by dry cooling is estimated at 1.5 percent or less by the California Energy Commission (CEC) for the 520MW Blythe II project

located in a desert environment very similar to that of Mexicali.² The draft EIS identifies the efficiency penalty of one sub-system of a combined-cycle power plant, the steam cycle, during the hottest few hours of the year and implies that this is representative of the overall efficiency penalty imposed by dry cooling on a continuous basis. The average efficiency penalty imposed by dry cooling is 1/10th or less on the plant as a whole than the efficiency penalty identified in the DEIS for the steam cycle.

The cooling alternative recommended by BPPWG in its December 1, 2003 EIS scoping comment letter to DOE was a parallel wet-dry cooling system that incorporates the wet cooling system currently in use at both LRPC and TDM. The dry component of the system would be designed to handle the entire cooling load up to an ambient temperature of 80 to 90 °F. Wet cooling would augment the dry system at temperatures above 80 to 90 °F. 100 percent wet cooling could be used on peak temperature days to ensure maximum power output from the plants. However, by incorporating dry cooling as the primary cooling system, the parallel wet-dry cooling system water use would be reduced more than 90 percent relative to a wet-only system. The DEIS (pg. 2-37) provides no substantiation of the statement that a typical wet-dry cooling system would achieve a ratio of wet-to-dry cooling on the order of 50 percent. BPPWG provided DOE with a copy of 2003 Cooling Technologies Institute paper at the November 21, 2003 EIS scoping hearing in Calexico that describes in detail how to construct parallel wet-dry cooling systems to minimize water use and maximize system performance.³ A highly effective parallel wet-dry cooling system, designed to reduce water use more than 90 percent relative to the current wet-only design, could readily be retrofitted to both the LRPC and TDM cooling systems.

In reality the wet-dry alternative recommended by the BPPWG would cost \$30 million or less (per plant). The vendor equipment cost for a single air-cooled condenser (ACC) cell with a standard fan is approximately \$500,000. Use of an ultra-low noise fan and fan motor noise attenuation housing would increase this cost to approximately \$600,000 per cell. The installation cost for ACC in Mexico is well known in the industry due to the high number of ACC installations on Mexican combined-cycle power plants, a total of eight to date. Installation in Mexico adds approximately 20 percent to the basic equipment cost. Adding a 30-cell ACC to either LRPC and TDM would reduce annual cooling system water consumption by 90 percent or more. The greenfield installed cost of a 30-cell ACC in Mexico should be less than \$20 million. Assuming a 30 percent premium for retrofit challenges, a typical retrofit premium for major power plant pollution control retrofits such as flue gas desulfurization, the total installed cost of a 30-cell ACC retrofit would be considerably less than \$30 million.

A number of parallel wet-dry cooling systems are in operation around the world on a variety of combustion systems, including combined-cycle power plants. The one conversion of a wet cooling system to a wet-dry system, at the 37 MW Streeter No. 7 pulverized-coal Cedar Falls,

²CEC, *Preliminary Staff Assessment – Blythe Energy Project Phase II*, Soil & Water Resources, App. A – Water Supply & Cooling Options (p. 48), November 2003.

³Attachment A: Debacker, L., Wurtz, W., *Why Every Air-Cooled System Needs a Cooling Tower*, Paper TP03-01, presented at Cooling Technology Institute Annual Conference, August 2003.

Iowa in 1995, incurred minimal additional retrofit costs and has been operating successfully for nearly a decade.⁴

⁴Attachment B: Rusley D., *Streeter Station Unit 7 Retrofit to Wet-Dry Cooling System*, presented at Dry Cooling Symposium, San Diego, May 2002.

The DEIS identifies that the proposed action will consume 10,667 acre-ft/year of water (p. S-26). This is approximately 3.5 billion gallons of water per year. A parallel wet-dry cooling system designed and operated to reduce cooling water consumption by 90 percent or more would reduce water consumption to 350 million gallons per year (1,067 acre-ft/yr) or less. Conversely, the parallel wet-dry cooling system would free over 3 billion gallons per year of low salinity water for return to the New River.

Recommendation 3: Incorporate wet-dry cooling at LRPC and TDM. Limit total water consumption by LRPC and TDM to 1,067 acre-ft/yr, equal to a 90 percent reduction in the water consumption of the proposed action. Wet-dry cooling would nearly eliminate: 1) increases in TDS concentration in the New River caused by LRPC and TDM discharges, 2) the estimated 100 tpy of PM₁₀ emissions from exposed Salton Sea shoreline caused by reduced flow in the New River,⁵ and 3) would allow utilization of the wet cooling capacity currently installed at LRPC and TDM to ensure that maximum power production is achieved during periods of peak revenue (hot summer days).

⁵DEIS, p. S-30: “Under proposed action, reductions in annual inflow to the Salton Sea from the New River would expose an estimated 97 acres of shoreline that is currently under water. . .an estimated emission rate of 100 tpy of PM₁₀ could result from a 97-acre reduction in Salton Sea area.”

Response 0004-003

Regarding the efficiency penalty cited in the DEIS, text has been added to the FEIS in Section 2.3.2 clarifying that this penalty is on only a portion of the total plant output. With respect to the application of a parallel wet-dry cooling system on the plants in Mexico, Section 2.3.1 of the EIS has been extensively revised to present a more detailed analysis of the installation and operation of such systems on the plants.

However, DOE and BLM disagree with the statement in the comment that a “highly effective parallel wet-dry cooling system, designed to reduce water use more than 90% relative to the current wet-only design, could readily be retrofitted to both the LRPC and TDM cooling systems.” The difficulties of such a retrofit are now noted in Section 2.3.1, while the estimated 90% reduction in water use is not considered reasonable in the current application. The DeBacker and Wurtz paper (2003) cited in the comment assumes primary dry cooling supplemented by wet cooling in a parallel condensing system that would use wet cooling on only 30 days per year. Simões (2004) notes that the daily mean maximum temperature exceeds 90°F (32°C) for 7 months of the year. Accordingly, the configuration of the system analyzed is not one that employs dry cooling as the primary cooling system supplemented by wet cooling only on the hottest days that would achieve a 90% reduction in water use. Rather, a system that uses wet cooling at

current water use rates on days above a 90°F (32°C) transition temperature is analyzed. Estimated water use is a function of the number of days above this temperature and is roughly 44% of the current wet-only system (a 56% reduction).

It is not reasonable to assume a system that relies primarily on dry cooling in the context of a retrofit of the current plants, which were designed for wet cooling. Further, since the existing water treatment plants would have to operate at a steady high level to maintain functionality in the bioreactors, it is not reasonable to assume a 90% reduction in water use in this context. The impacts of the estimated water use reduction are analyzed with respect to water resources in Section 4.2.5. In addition, an analysis of the time and cost consideration of retrofitting a wet-dry system at the power plants has been added to Section 2.3.1. Regarding the estimated cost provided in the comment of no more than \$30 million for each plant, DOE and BLM note the estimate provided in Exhibit B of Simões (2004) of more than \$75 million, plus up to 5 months of lost production for TDM.

Please also see the response to Key Issue 6 regarding the wet-dry cooling system.

Comment 0004-004

Comment 4: PSD Increment Analysis Significant Impact Levels Are Not Applicable

Prevention of Significant Deterioration (PSD) increment analysis is not applicable to new sources located in a non-attainment area (Mexicali) that are impacting an adjacent non-attainment area (Imperial County). DOE assumes that Mexicali is a hypothetical attainment area in the DEIS. This is an incorrect assumption. It is not in dispute that Mexicali is non-attainment for PM₁₀, O₃, and CO. The 1-hour ambient ozone standard in Mexico is 0.11 ppm, slightly more health protective than the historic 1-hour U.S. standard of 0.12 ppm. The 24-hour PM₁₀ standard of 150µg/m³ is the same in Mexico and the U.S.

The Mexicali ambient air quality monitoring station data summaries provided in Tables D-5 through D-8 of the draft EIS show that the peak 1-hour O₃ and CO levels and peak 24-hour PM₁₀ levels exceed both Mexican and U.S. PM₁₀, O₃, and CO ambient air quality standards. In fact, Mexicali frequently exceeds the U.S. National Ambient Air Quality Standards (NAAQS) for PM₁₀, O₃, and CO.

As noted at the bottom of pg. 3-49: “Areas that meet the NAAQS are said to be in attainment. The air quality in attainment areas is managed under the PSD program of the Clean Air Act (CAA). The goal of this program is to maintain a level of air quality that continues to meet the standards. Areas that do not meet one or more of the standards are designated as nonattainment areas. The CAA requires each state to produce and regularly update a State Implementation Plan (SIP) that includes a description of control strategies or measures to deal with pollution, for areas that fail to achieve NAAQS.”

The scientific, health-based reality is that Mexicali is a highly contaminated nonattainment area. Only attainment areas are managed under the PSD program. The application of PSD increment analysis, and the associated Significant Impact Levels (SIL), to sources located in a

nonattainment area is simply wrong. The CAA is explicit in requiring emission offsets for new sources located in nonattainment areas. As stated in CAA Title I, Part D — Plan Requirements for Nonattainment Areas, Section 173(c): *Offsets — The owner or operator of a new or modified major stationary source may comply with any offset requirement in effect under this part for increased emissions of any air pollutant only by obtaining emission reductions of such air pollutant from the same source or other sources in the same nonattainment area, except that the State may allow the owner or operator of a source to obtain such emission reductions in another nonattainment area if (A) the other area has an equal or higher nonattainment classification than the area in which the source is located and (B) emissions from such other area contribute to a violation of the NAAQS in the nonattainment area in which the source is located.*

Current Mexico air quality regulations do not provide a mechanism for ultimately achieving compliance with ambient air quality standards, unlike U.S. regulations. There is a regulatory gap.

DOE is essentially encouraging the exploitation of this regulatory gap by misapplying PSD increment analysis in an attempt to demonstrate there is no health-based justification for offsetting 100s of tons/yr of NO_x and PM₁₀ emissions from LRPC and TDM. The BPPWG recognizes that Mexicali is not in the U.S. and therefore is not subject to nonattainment status designation under the Clean Air Act (CAA). However, given DOE has chosen to apply CAA requirements to evaluate the impacts from the Mexicali plants on Imperial County, the DOE must rigorously follow the requirements in the CAA and not simply pick-and-choose requirements to achieve a pre-determined end result — no significant impact.

Ambient data for Mexicali provided in the draft EIS (Appendix D, Tables D-5 through D-8) clearly show that Mexicali is non-attainment for U.S. 1-hour O₃ and 24-hour PM₁₀ NAAQS. A complete summary of Mexicali O₃, PM₁₀ and CO exceedances (see Comment 6) would give a much more comprehensive understanding of the high rate of NAAQS exceedances in Mexicali. The NAAQS are health-based standards. Use of the international border as a shield to avoid implementing mitigation measures, specifically offsets, that would adequately protect U.S. and Mexican citizens being exposed to air emissions from the power plants is unethical and opposite the intent of E.O. 12114. The failure to offset these emissions will cause additional cases of asthma, as noted in the draft EIS (p. 4-98), in populations on both sides of the border that are already suffering from elevated incidence of pulmonary sickness. As noted in the July 3, 2003 Court Order (DEIS, p. A-70), “... as a matter of common sense, it is clear that discharges of pollutants that actually, if not legally, cause violations of the NAAQS, or make existing violations worse, have the potential for adversely affecting health.” This observation was in response to the fact that even a 3 µg/m³ increase in the 24-hour PM₁₀ concentration would have caused two particulate monitoring stations in Calexico to exceed the 150 PM₁₀ NAAQS eight times between 1994 and 2002 (DEIS, p. A-69).

The total of cost of NO_x and PM₁₀ offsets for the LRPC export turbines and the TDM plant are estimated to be in the range of \$20 to \$30 million on a one-time basis.⁶ The combined capital cost of the LRPC export turbines and the TDM plant is on the order of \$750 million. The annual gross revenue stream of these two plants is on the order of \$3 to \$4 billion. The cost of

⁶December 1, 2003 BPPWG EIS scoping period comment letter to DOE.

effectively mitigating NO_x and PM₁₀ emissions from the LRPC export turbines and the TDM plant is de minimus relative to the plant capital cost and annual revenue streams.

Recommendation 4: EIS must follow the correct application of CAA requirements and identify NO_x and PM₁₀ emission offsets as necessary mitigation for the LRPC and TDM projects.

Response 0004-004

Regarding analyzing impacts in Mexico, please see the response to Key Issue 1. Regarding the use of SLs, please see the response to Key Issue 2. Regarding the recommendation that the EIS must require offsets of power plant emissions, please see the response to Key Issue 3. Cost information on possible air mitigation measures has been added to Section 2.4 of the EIS. These costs are within the range of the estimates noted in the comment.

Comment 0004-005

Comment 5: DEIS Must Include Summary of Mexican Ambient Air Quality Standards

U.S. NAAQS are provided in Table 3.3-2 on p. 3-51 of the DEIS. A summary of ambient air quality monitoring results is provided in Appendix D of the DEIS, yet nowhere is a summary of Mexican ambient air quality standards provided that would put the Mexican monitoring data into perspective.

Recommendation 5: Provide a table summarizing Mexican ambient air quality standards.

Response 0004-005

Mexican air quality standards are not germane to the impacts in the United States. Also, the Mexico government has performed its own environmental review and has approved the power plants. Please see Key Issue 1 and Appendix J of the EIS.

Comment 0004-006

Comment 6: DEIS Must Include Summary Tables Showing Number of Exceedance Days at Each Imperial County and Mexicali Ambient Air Quality Monitoring Station

The DEIS text from p. 3-56 through p. 3-60 includes a series of figures and bar graphs showing “average annual arithmetic mean” concentrations of CO, NO_x, O₃, SO₂ and PM₁₀ for the three Imperial County and four Mexicali monitoring stations. The primary air quality issue in both Imperial County and Mexicali is high short-term peak concentrations of PM₁₀, O₃, and CO, not annual average concentrations.

Recommendation 6: The EIS must include tables showing the number of days per year the short-term peak concentrations of PM₁₀, O₃, and CO have been exceeded at the Imperial County and Mexicali monitoring stations, for the most recent 5-year period of validated monitoring data.

Response 0004-006

Table 3.3-3 showing NAAQS exceedances and maximum air pollutant concentration measurements in Imperial County for O₃, CO, and PM₁₀ from 1987 through 2003 has been added to Section 3.3.2 of the EIS. Regarding the addition of similar data for Mexicali, please see the response to Comment 0004-005 and Key Issue 1.

Comment 0004-007

Comment 7: DEIS Provides No Verifiable Information on What Processes at the LRPC and TDM Wastewater Treatment (WWT) Plants Are Removing TDS

The DEIS asserts (p. 4-19) that approximately 9 million pounds per year (lb/yr) of TDS will be removed due to LRPC and TDM WWT operations. The purported reduction in TDS, along with projected reductions in pathogens, nutrients, and total suspended solids, was a principal reason the court chose not to enjoin operation of LRPC and TDM during the EIS preparation phase. In June 2003 the Regional Water Quality Control Board's water treatment expert pointed-out that none of the processes identified by LRPC or TDM as TDS removal processes are typically considered to be TDS removal process.⁷ The DEIS provides no information on any process specifically designed to removed TDS at the WWT plants.

Both LRPC and TDM wastewater treatment experts identify the incoming untreated raw water TDS concentration as 1,200 mg/l.⁸ The TDM expert also makes clear that this raw water will continue to be treated and discharged to the New River even when the power plant is offline, stating, "*Expected maximum operations have the plant running at full capacity 75 percent of the time and operating in bypass mode the remaining 25 percent of the time on an annual basis. During bypass mode of operation, because the water is treated but not used to cool the plant,... the treated water is simply discharged into the drainage channels without the effects of evaporation.*"⁹ Yet the TDM project manager identifies the treated water TDS concentration as "*approximately 1,180 mg/l,*" essentially no different than the incoming untreated water TDS concentration of 1,200 mg/l. Specifically the TDM project manager states, "*During bypass operation (approximately 25% of the time), when the plant is not producing power, the discharge has an approximate TDS concentration of 1,180 mg/l.*"¹⁰

⁷June 2003 Angel Decl. ¶¶ 13-18.

⁸June 2003 Hromadka Decl. ¶ 29, Kasper Decl. ¶ 6.

⁹June 2003 Hromadka Decl. ¶ 29.

¹⁰June 2003 Simoes Supplemental Decl. ¶ 9.

Recommendation 7: The EIS must be modified to indicate there will be no reduction in TDS loading on the New River as a result of power plant operations. There is no apparent reduction in

TDS across the LRPC and TDM WWT plants, according to the influent and effluent TDS concentration data provided by the LRPC and TDM wastewater treatment experts and the TDM project manager.

Response 0004-007

Sections 2.2.2 and 4.2.4.1.2 now include a discussion of the wastewater treatment systems responsible for TDS removal at the two power plants as summarized below. Also, please see the response to Key Issue 14.

The biological treatment reactor and clarifiers, which produce only a small decrease in TDS, may be the process being referred to in the comment, based on cited TDS values of around 1,200 mg/L for influent and effluent streams. However, additional and substantial TDS removal occurs in the next stage of the treatment process, the lime softeners.

The majority of the TDS removal cited in the EIS occurs in this step of the water treatment process. In this stage of the water treatment process, lime (calcium hydroxide) is added to the water causing precipitation of calcium and magnesium, as well as substantial amounts of alkali metals, heavy metals, and phosphate. The precipitated sludge is flocculated and separated from the water by sedimentation in a clarifier and sent to a filter press where it is dried for shipment offsite. Effluent from this step has a TDS that ranges from about 900 to 1,000 mg/L.

The lime softeners are bypassed when the plants are in bypass mode, about 25% percent of the time for TDM as noted in the comment. The text added to Section 4.2.4.1.2 notes this and the fact that TDS removals would be reduced accordingly.

Comment 0004-008

Comment 8: Brine Discharges from the Power Plants Exceed the 4,000 mg/l TDS Limit Prescribed for the Colorado River Basin and These Brine Discharges Must Be Mitigated

The DEIS correctly notes that an upper-bound salinity¹¹ value of 4,000 mg/l has been established as a water quality objective for the Colorado River Basin (p. 3-22). The TDS concentration in the in the discharge water from the power plants is expected to be 4,800 mg/l for LRPC and 4,430 mg/l for TDM. Total discharge of this high TDS wastewater to the New River from LRPC and TDM will be on the order of 600 million gallons per year. The wastewater volume increases to close to 1 billion gallons per year of discharge to the New River if the two domestic EAX turbines at LRPC are also included.¹² The DEIS indicates (p. 3-14) that the TDS concentration in the New River at the border varies between 1,500 and 3,500 mg/l, with a 6-year average between 1997 and 2003 of 2,620 mg/l. The water quality expert hired by LRPC stated that the “salinity in the New River ranges from 3,500 mg/l at the border to approximately 4,000 to 5,000 mg/l at the outlet into the Salton Sea.”¹³

In contrast, the water being diverted from the New River to LRPC and TDM has a typical TDS concentration of 1,200 mg/l (p. 4-19). This source water, at a TDS of 1,200 mg/l, has a very beneficial effect on the New River as a diluent that contributes to compliance with the 4,000 mg/l TDS water quality objective. The direct discharge of untreated high salinity wastewater from LRPC and TDM, with TDS concentrations ranging from 4,430 to 4,800 mg/l, has the opposite effect. The New River was not meeting the 4,000 mg/l water quality objective near its terminus with the Salton Sea even before LRPC and TDM began operation, based on testimony by LRPC's water quality expert. Discharging untreated high TDS wastewater from LRPC and TDM into the New River will exacerbate the degree of non-compliance with the 4,000 mg/l Colorado River Basin water quality objective.

There are no numerical or narrative standards in Mexico that require removal of TDS from wastewater discharge streams. The high TDS wastewater discharge from LRPC and TDM enters the New River literally on the border, as shown in the DEIS (p. 2-32). The Colorado River Basin Regional Water Quality Control Board (Regional Board) would consider that the high TDS wastewater discharges from LRPC and TDM violate the Regional Board's standards for the New River.¹⁴

Multi-million dollar investments in adequate wastewater treatment and/or discharge elimination systems are mandatory for power projects located on the U.S. side of the border just north of the LRPC and TDM projects. The only large power plants that have been permitted recently in the Colorado River Basin region, or that are currently undergoing permitting, are the 520 MW Blythe I project, the 185 MW Salton Sea No. 6 geothermal project, the 520 MW Blythe Phase II project (in permitting). Blythe I uses evaporation ponds to prevent high salinity wastewater discharges into surface waters. Salton Sea No. 6 will reinject process wastewater back into the geothermal aquifer. Blythe II is currently recommended as a dry-cooled project by CEC staff. These power projects, equipped with adequate wastewater treatment and/or elimination systems, are competing in the same California power market as LRPC and TDM. By building in Mexico and discharging into the New River a few feet south of the U.S. border, both LRPC and TDM gain a significant competitive advantage by avoiding stricter U.S. wastewater discharge control requirements.

Mitigation equivalent to what would be required if the LRPC and TDM plants were located in the Colorado River Basin region on the U.S. side of the border is necessary. Evaporation ponds or an equivalent "zero liquid discharge (ZLD)" system would address the problem of high TDS wastewater discharges to the New River. However, retrofitting dry cooling to the existing wet cooling systems at LRPC and TDM would reduce both brine discharges and flow reduction caused by the proposed action to a fraction of current levels. This would to a large extent mitigate the dual problems of (1) high TDS wastewater discharges, and (2) the estimated 100 tpy

¹¹Salinity and TDS are interchangeable terms.

¹²June 2003 Hromadka Decl. ¶ 32. Combined wastewater discharge is 2,720 acre-ft/yr (~900 million gallon/year).

¹³June 2003 Kasper Supplemental Decl. ¶ 17.

¹⁴June 2003 Angel Decl. ¶ 20.

of PM₁₀ emissions associated with the increased exposed shoreline around the Salton Sea resulting from reduced flow in the New River. Addition of a small ZLD system would address wastewater discharges remaining after installation of the dry component of the parallel wet-dry cooling system. It is important to note that if mitigation is unacceptable to LRPC and TDM, both companies could “...choose to sell their power to the Mexican market or transmit their power via an alternate route...”¹⁵

¹⁵May 3, 2003 Court Order, p. 37 (also p. A-41 of DEIS).

Recommendation 8: Mitigate wastewater discharges by retrofitting the LRPC and TDM wet cooling systems to parallel wet-dry cooling systems. Mitigate the remaining wastewater discharges by adding ZLD systems.

Response 0004-008

Regarding the 4,000-mg/L TDS water quality objective, please see the responses to Key Issue 15. In response to comments, a discussion of a zero-liquid discharge technology has been added to Section 2.3.1.2 of the EIS. This technology was considered but eliminated from further analysis because of its complexity in the context of a retrofit and its small expected benefits to the New River and Salton Sea.

Comment 0004-009

Comment 9: Conformity Analysis Must Include Emissions from Power Plants and Indirect PM₁₀ Emissions from Reduced Flow in New River

As noted on p. 4-38 of the DEIS, Section 176(c) of the CAA requires that Federal actions conform to the appropriate State Implementation Plan in a non-attainment area, with the expressed purpose of *eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards*. Imperial County is a Federal non-attainment area for PM₁₀ and O₃. The threshold for triggering conformity review in this case is 100 tons/yr both PM₁₀ and NO_x (O₃ precursor). Combined PM₁₀ emissions from the two LRPC export turbines and TDM, the associated cooling towers, and indirect emissions from exposure of Salton Sea shoreline, total 833 tpy (p. G-3). Combined NO_x emissions are projected at approximately 400 tpy.

The DEIS ignores power plant emissions and the indirect PM₁₀ emissions caused by reduced flow in the New River in reaching the conclusion that the proposed action is exempt from review of conformity. This is inconsistent with Judge Gonzalez’ determination in the May 3, 2003 Court Order that (p. 36): “*Here, the scope of the action relates only to the transmission lines, but the nature of the action includes the full scope of the analysis, including the effects of the action. The nature of the action therefore includes the importation of power generated in Mexico. Indeed, to leave out the secondary impacts would be at odds with the purpose of the alternatives analysis, which is to provide a way for an agency to calculate and compare the various predicted effects of alternative courses of action. The analysis would be arbitrary in itself if it did not take into account all effects of a proposed action.*”

Recommendation 9: Include the LRPC and TDM power plant emissions in the air emissions assessment used to determine whether the proposed action is exempt from review of conformity.

Response 0004-009

Regarding the question of including emissions from the power plants in the conformity analysis, please see the response to Key Issue 17.

Comment 0004-010

Comment 10: DEIS Underestimates Secondary PM₁₀ Impacts Relative to Secondary PM₁₀ Impacts Described in June 16, 2003 Supplemental Declaration of Dr. Heisler

The DEIS concludes that secondary PM₁₀ emissions are de minimus (p. 4-47). The DEIS also summarizes Dr. Heisler's June 2003 Declaration (p. C-13) as stating "*Heisler further concludes that because the region is ammonia rich, plant emissions would not lead to significant formation of NH₄NO₃ (secondary PM₁₀ particulate)*" apparently to support the de minimus conclusion. However, the EIS fails to acknowledge or summarize Dr. Heisler's Supplementary Declaration, where he explicitly calculates a secondary PM₁₀ 24-hour increment of 1.8 µg/m³. The court determined in its July 3, 2003 Order that the modeled 24-hour PM₁₀ increment was 4.8 µg/m³, just below the 5.0 µg/m³ trigger level for mitigation. As noted in the Order, 3.0 µg/m³ of this total is primary PM₁₀ and 1.8 µg/m³ is secondary PM₁₀ in the form of ammonium nitrate emissions (p. 24). The 1.8 µg/m³ 24-hour secondary PM₁₀ increment was taken directly from Dr. Heisler's Supplementary Declaration. The Order also notes that the 4.8 µg/m³ 24-hour increment is not necessarily a conservative estimate, stating "*Indeed, the contribution to particulate formation from ammonia may even be higher since it appears from Heisler's declaration that he has used estimates of actual ammonia emissions, rather than the more conservative "potential to emit" estimates normally required when reviewing new emissions sources. (See Supp. Stockwell Decl at paragraph 3).*"

The SCR ammonia slip level limit for the LRPC export turbines and the TDM turbines is identified as 10 ppm on p. G-3 and G-4 of the DEIS. Dr. Heisler estimated actual annual ammonia emissions would be 93 tons/yr (tpy), assuming an ammonia slip level of 5 ppm as well as reduced operating hours, in calculating the 1.8 µg/m³ increment in secondary 24-hour PM₁₀ ammonium nitrate emissions. However, use of the emission limit and maximum potential hours of operation is required in CAA regulations for modeling air quality impacts [40 CFR§51.166(m)(a)]. The maximum potential ammonia slip emissions from the EBC and EAX export turbines are 222 tpy (p. G-4). The maximum potential ammonia slip emissions from the TDM turbines is 276 tpy (p. G-4). The total potential ammonia emissions from the LRPC and TDM export turbines is 498 tpy, over five times the ammonia emission rate assumed by Dr. Heisler when he calculated a 1.8 µg/m³ 24-hour secondary PM₁₀ increment. Increasing the ammonia emission rate by a factor of 5 should have a linear effect on the modeled secondary PM₁₀ increment, increasing it from 1.8 µg/m³ to 9 µg/m³.

The draft EIS uses a different air dispersion model to analyze pollutant increments, AERMOD, relative Declaration, to the ISCST3 model used to calculate increments in the EA (p. 4-29). However, the results for the primary PM₁₀ increment drop only slightly using AERMOD, from 3.0 µg/m³ using ISCST3 to 2.45 µg/m³ using AERMOD. However, there is a dramatic difference in the expected 24-hour secondary PM₁₀ increment extrapolated from Dr. Heisler's Supplemental Declaration, approximately 9 µg/m³, and the AERMOD results for 24-hour secondary PM₁₀ presented in the DEIS (p. 4-45) of "on the order of 1 µg/m³."

The DEIS goes on to state (p. 4-47) "*In conclusion, the body of the above analysis indicates that secondary formation of NH₄NO₃ as a result of NO_x (and any NH₃) emissions from the TDM and LRPC power plants is de minimus, and thus little associated impact can be ascribed.*" This statement is in conflict with the secondary PM₁₀ 24-hour increment results provided in Dr. Heisler's June 2003 Supplemental Declaration.

Recommendation 10: DOE must explicitly describe the assumptions regarding: 1) ammonia emissions from the turbine stacks, 2) the quantity of ammonia converted to ammonium nitrate, and 3) any peculiarities of the AERMOD model that result in a modeled ammonium nitrate 24-hour increment that is nearly 1/10th what would be expected based on Dr. Heisler's June 16, 2003, Supplemental Declaration.

Response 0004-010

Regarding the analysis of secondary PM₁₀ generation in the atmosphere from power plant primary emissions, please see the response to Key Issue 10.

Comment 0004-011

Comment 11: DEIS Must Define Offsets as Necessary Mitigation for PM₁₀ and NO_x Emissions and Describe the Specific Offsets That Will Be Obtained

The DEIS fails to identify PM₁₀ and NO_x offsets as necessary mitigation due to a flawed application of U.S. air quality regulatory requirements as noted in Comment 4. Emission offsets are absolutely necessary for any increase in emissions above de minimus levels when the plant(s) is located in a non-attainment area. Mexicali is unquestionably in non-attainment of PM₁₀, ozone, and CO NAAQS and Mexican ambient air quality standards. One verifiable and permanent source of emission offsets for the LRPC and TDM projects is road paving. The draft EIS appropriately identifies 23 miles of road paving that could be carried out in Imperial County to offset approximately 650 tons of PM₁₀ emissions (p. 4-59). This is somewhat less than the combined estimated PM₁₀ emissions from the LRPC export and TDM projects of 733 tpy (p. G-3). Approximately 400 tpy of NO_x will be emitted by the LRPC export and TDM turbines. A simple solution to identifying "*verifiable and permanent*" NO_x offsets in this case would be to allow cross pollutant offsetting of NO_x emissions at a one-to-one ratio as PM₁₀ reductions. The draft EIS (p. S-3 1) also correctly notes that "*[NO_x and PM₁₀] Mitigation opportunities in Mexico could also prove to be beneficial and cost-effective. These might include road paving, replacing older automobiles and buses, and converting fuel used in brick kilns to natural gas.*" NO_x could readily be offset by carrying out sufficient road paving in Mexicali to offset all NO_x

emissions (as PM₁₀ reductions) from the plants as well as additional PM₁₀ offsets necessary after 23 miles of roadway are paved in Imperial County.

It is important to note that power projects on the California side of the border, serving the same market as the LRPC and TDM turbines, must purchase emission offsets for project emissions. Otay Mesa is located approximately 2 miles north of the U.S.-Mexico border and about 15 miles southeast of San Diego. Construction of the project is about to commence. Otay Mesa will pay \$30 million to offset PM₁₀ and NO_x, emission levels that are significantly lower than the projected PM₁₀ and NO_x, emission levels from either LRPC and TDM.

Recommendation 11: The EIS must explicitly require the mitigation of a total of 733 tpy of PM₁₀ and 400 tpy of NO_x, from the LRPC and TDM projects and describe in detail how the mitigation will be achieved.

Response 0004-011

Regarding the recommendation that the EIS must require offsets of power plant emissions, please see the response to Key Issue 3. The EIS identifies potential offset opportunities in Section 2.4. Any decision by DOE to implement Alternative 4 or to otherwise place conditions in a Presidential permit will be made in the ROD.

Comment 0004-012

Comment 12: DOE Must Include Impacts from Power Plants Supplying the Second Circuits on the LRPC and the TDM Transmission Lines in Cumulative Impacts Analysis

Both the LRPC and TDM transmission lines are double-circuit designs capable of carrying the full power output from two 600 MW plants each. DOE relies solely on information provided by Sempra (p. 5-11), in which the company states it has conducted preliminary studies related to a second 600 MW plant, to conclude a second plant at either the LRPC and TDM site is not likely in the foreseeable future. Clearly Sempra has a strong financial interest in understating the potential for a second power plant in Mexicali, as inclusion of this plant in the air modeling analysis would contribute to further NO_x and PM₁₀ impacts and underscore even further the needs for emission offsets. As a result, the modeled air and water quality impacts in the draft EIS assume only one 600 MW plant per transmission line. Assuming only one of two circuits on each transmission line will be used for the foreseeable future is incorrect given the strong evidence that second plants will be built at both the LRPC and TDM sites within the next 10 years.

The export component of the LRPC plant has a capacity of 560 MW, while the TDM plant has a capacity of 600 MW. Each circuit of the double circuit transmission lines has a capacity of approximately 600 to 700 MW. The total capacity of each double circuit transmission line is 1,200 to 1,400 MW, as stated by LRPC and TDM in their respective applications for Presidential Permits. The original Environmental Assessment analyzed the environmental impact of 1,160 MW of power generation capacity while the Permits authorize LRPC and TDM a total of up to 2,800 MW of power transmission capacity. Why would a second circuit have been

included in the design of each transmission line if LRPC and TDM did not intend to use the second circuit in the foreseeable future? The cumulative impacts analysis must address a level of power plant environmental impact that is representative of the double circuit transmission capacity the DOE is authorizing under the Presidential Permits.

The Council on Environmental Quality is explicit that a National Environmental Policy Act cumulative impact analysis must include cumulative effects caused by reasonably foreseeable future actions.¹⁶ The DEIS defines this on pg. S-24 as actions that will take place in the next 10 years. The draft EIS cites only three power projects, all in the U.S., as the only power projects that could foreseeably impact the area. These are the 520 MW Blythe Phase II project, CalEnergy's 185 MW Salton Sea No. 6 geothermal project, and the 620 MW Wellton-Mohawk power plant east of Yuma, Arizona. According to the CEC, both Blythe II and the Salton Sea No. 6 geothermal project are scheduled to be on-line by 2006.¹⁷ The Wellton-Mohawk project was approved by the Arizona Corporation Commission in May 2003 and is expected to be operational in 2006 or 2007.¹⁸ The DEIS limits the cumulative impacts assessment to U.S. regional power projects that are permitted (or about to be permitted) and expected to be constructed in 2 to 3 years while ignoring overwhelming evidence that: 1) a much greater level of power plant construction is planned over the next 10 years on the Baja California side of the border, and 2) one of those projects will be constructed by Sempra Energy to export power to the U.S. and utilize the second circuit of the 1,200 MW export transmission line built by TDM to serve the U.S. market.

Baja California is projecting an electrical energy demand growth rate of 6 percent per year. Mexico's Secretary of Energy has recently stated that an additional 2,055 MW of gas-fired power generation is planned for Baja California by 2013.¹⁹ This represents a doubling of Baja California's gas-fired power generation capability in 10 years. Sempra Energy is predicting that the natural gas demand in Baja California will increase from approximately 150 to 200 million cubic feet per day (mmcf) in 2003 to 500 mmcf in 2008 and reach 1,000 mmcf by 2015.²⁰ Virtually all natural gas used in Baja California is used in gas-fired power plants. A Baja California gas demand of 500 mmcf in 2008 represents nearly a three-fold increase in power plant gas consumption over current levels. Given the spectacular projected increase in gas-fired power generation in Baja California over the next 10 years it is hard to imagine a scenario where LRPC and TDM, having requested and received authorization to build double circuit transmission lines capable of transmitting 1,200 MW to 1,400 MW each, would not at some point in the next 10 years utilize most or all of the authorized transmission line capacity. The Comisión Federal de Electricidad (CFE), the Mexican national utility monopoly, shows a second

¹⁶Council on Environmental Quality, Executive Office of the President, *Considering Cumulative Effects Under the National Environmental Policy Act*, January 1997, p. 8.

¹⁷http://www.energy.ca.gov/sitingcases/all_projects.html#review.

¹⁸<http://www.cc.state.az.us/news/pr08-15-03.thm>.

¹⁹Attachment C: Calderon, F., Opportunities for LNG Terminals in Mexico, U.S. DOE LNG ministerial Summit presentation, December 17-18, 2003.

²⁰Attachment D: Sempra response letter to Greenpeace dated May 21, 2004.

600 MW TDM export power plant coming on-line in Mexicali in June 2005.²¹ The June 2005 estimated start-up date will not be met. However, this plant will almost certainly be built during the cumulative impact analysis time period defined as 10 years in the DEIS.

²¹Attachment E: Aboytes, F., *CFE Generation and Transmission Expansion Plan Baja California System: 2003-2007*, Southwest Transmission Expansion Plan meeting, March 2003.

Recommendation 12: The cumulative impact analysis must assume a second 600 MW plant at the LRPC site and a second 600 MW plant at the TDM site.

Response 0004-012

Regarding the use of the second circuit on the transmission lines, please see the response to Key Issue 16. The DEIS concluded that there were no foreseeable plans to construct additional power plants in the study area (based on the criteria listed in the introduction of Section 5.3, "Reasonably Foreseeable Future Actions"). A new section has been added to Section 5.3.7, "General Trends in the Imperial Valley-Mexicali Region," to acknowledge the evidence that the demand for electrical energy in Mexico is growing. The locations of any future plants are not clear, however. Currently there is no specific evidence that any plants would be built near enough to Imperial County to cause additional impacts there.

Comment 0004-013

Comment 13: DEIS Should Include a Description of Seven Environmental Permit Conditions for Inclusion in the LRPC and TDM Presidential Permits to Ensure Compliance with Environmental Mitigation Commitments

The failure of Intergen to install SCR on the EAX export turbine in a timely manner is an example of why explicit conditions must be included in the Presidential Permits to ensure compliance with the mitigation measures identified in the EIS. It was the Court's clear understanding in May 2003 that the EAX export turbine would be equipped with SCR to achieve an emission limit of 4 ppm by the date of commercial start-up.²⁷ It is likely that several 100s of tons of additional NO_x were emitted from this turbine between June 2003 and January 2004 as a result of LRPC's failure to install the SCR. LRPC ultimately shut down the EAX export turbine in January 2004.²⁸ LRPC restarted the turbine in March 2004 claiming that the SCR was installed and operational. However, BPPWG is unaware of any data provided by LRPC or DOE that demonstrates that the SCR is in fact operational and achieving the 4 ppm NO_x emission limit identified in the original Environmental Assessment or the 2.5 ppm NO_x limit identified for EAX export turbine on p. G-3 of the DEIS.

Explicit Presidential Permit monitoring, reporting, and enforcement conditions are clearly necessary. As noted by the Court in the May 3, 2003 Order, *"Although defendants argue that 'international sensitivities' preclude conditioning the permits from being a reasonable and feasible alternative, such a discussion belongs in the EA's alternative analysis rather than a litigation brief. Furthermore, the Court is unconvinced that the federal government's jurisdiction*

to ameliorate negative environmental effects within the United States necessarily offends international principles of law. The condition would not be a direct regulation of Mexican power plants; those plants could still choose to sell their power to the Mexican market or transmit their power via an alternate route rather than meet the condition.”

²⁷May 3, 2003 Court Order, p. 3 (also see DEIS p. A-7).

²⁸Attachment F: Intergen Gives In, Unplugs Turbine, San Diego Union Tribune, January 17, 2004.

Recommendation 13: Seven environmental permit conditions should be added to the Presidential Permits that state —

1. All PM₁₀ and NO_x emissions must be completely offset within two years of the issuance of an approved Presidential Permit;
2. The DOE will enjoin use of the transmission line(s) at any time the plants are in violation of the air emission limits specified on p. G-3 and p. G-4 of the DEIS;
3. Air monitoring data will routinely/continuously be provided to Imperial County APCD authorities by LRPC and TDM;
4. Averaging time for all air pollutants is 3 hours;
5. Consumptive water use is limited to 717 acre-ft/yr at LRPC and 350 acre-ft/yr at TDM;
6. Data from an approved flow monitor must be routinely provided to the Regional Board to verify water consumption;
7. Discharge of wastewater to the New River that has not been treated for salinity removal is prohibited.

Response 0004-013

Regarding the question of conditioning the Presidential permits, please see the response to Key Issue 3.

COMMENTOR 0005: Christine Powell

Comment 0005-001

I learned about U.S. power plant developers attempting to take advantage of less stringent environmental standards in Mexico during the NEPA process. It is very important the full NEPA process not be averted, shortened, or avoided. That is your responsibility as a government worker and a US citizen.

Response 0005-001

A full NEPA process is being implemented under this EIS.

Comment 0005-002

The current NEPA regulation requires that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation. That process must take into account the emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali.

Response 0005-002

Under the NEPA process, the EIS identifies and analyzes mitigation of plant emissions as an alternative action. NEPA does not require that impacts from the power plants be mitigated. Regarding conditioning the Presidential permits to require mitigation, please see the response to Key Issue 3.

Comment 0005-003

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach sufficient level of significance to require mitigation.

Response 0005-003

The EIS identifies and quantifies the impacts of the proposed action and alternatives on air and water resources. As described in Sections 4.2 (water) and 4.3 (air), these impacts are small. The EIS also discusses potential mitigation opportunities.

**COMMENTOR 0006: Jurg Heuberger, Planning Director
Imperial County Planning/Building Department**

Comment 0006-001

Thus, from 2001 and the initial stages of the development of the (1) natural gas pipeline, (2) the natural gas-fired power plants, and (3) the 230-kV transmission lines from Mexico to the Imperial Valley Substation, the County has consistently and comprehensively in numerous written comments on the NEPA documents addressed the potential for air quality, water quality and human health impacts of these projects. The above three actions are considered by the County as interlinked and as three links within a causal chain of events.

In December 2001, the DOE and BLM after preparing a "Environmental Assessment (EA)," each agency issued a "Finding of No Significant Impact (FONSI)" for the Presidential Permits and the BLM rights-of-way for the 230-kV electric transmission lines.

However, since 2001, the subsequent federal documents prepared did not tie the above three federal actions together and thus “piece-mealed” the project into three separate individual segments or parts.

Once again, the current Draft EIS being prepared attempts to short circuit the environmental impact review process in only reviewing the two existing natural gas plants. For example, in both the Draft EIS “Summary” and also in Appendix H, ‘Health Risk Assessment for Air Toxics,’ the Draft EIS document only addresses “... **all plants operating**...” (See page S-43, second paragraph).

The natural gas pipeline that was planned and constructed was to supply natural gas to not only the identified power plants in the Draft EIS, but also cumulatively to supply “...**future numerous identified power plants**, expansion of farming west of Mexicali, new economic development projects, and new businesses that would be generated from these new sources of electrical energy...” (please reference the County previous correspondence in November 2003 and the attachments thereto).

Questions: What about the other natural gas power plants that were slated to be constructed in Mexicali? Why is the Court-required EIS only reviewing impacts based on “plants” currently in operation when in fact the lines intend to and can accommodate more?

To Summarize:

Suffice it to say that the Draft EIS to be prepared for only the above two natural gas-fired power plants, i.e. Intergeren and SEMPRA, is contrary to the “**public interest**” and, as stated in previous correspondence, the “Presidential Permit” should not have been granted without the appropriate mitigation measures needing to be imposed on “plants operating” as well as on future upgraded or new power plants in Mexicali, industrial/economic development projects, and the agricultural expansions west of Mexicali.

Since 2000, the County has consistently informed the federal government agencies, the State Lands Commission, and its environmental contractors that the project and its environmental impacts should be reviewed in its “entirety” and should be addressed upfront outlining all of the potential air quality, water quality impacts to the Salton Sea, and the human health impacts and the appropriate mitigation measures prior to the construction of the natural gas pipeline through Imperial County.

It is the County’s position that “but for” the construction of the natural gas pipeline through Imperial County into Mexico, there may not have been natural-gas powered plants, upgraded power plants, future industrial/economic development projects and no need for the 230-kV transmission lines crossing the international border into the Imperial Valley Substation.

Response 0006-001

Regarding the fact that the scope of the analysis does not include the natural gas pipelines that supply the power plants, please see the response to Key Issue 7. Regarding the potential cumulative impacts of future power plants, please see the response to

Key Issue 16. Regarding conditioning the Presidential permits to require mitigation, please see the response to Key Issue 3.

Comment 0006-002

As you may be aware, the County of Imperial is classified as a nonattainment area for federal PM₁₀, and the City of Calexico is classified as a nonattainment area for PM₁₀, ozone, and CO at this time. In the future, Imperial County may also be designated as nonattainment for PM_{2.5}. The U.S. Environmental Protection Agency (EPA) reviewed an air quality study prepared by the Imperial County Air Pollution Control District (APCD) stating essentially that the County would have attained a “moderate” PM₁₀ classification were it not for the harmful air pollution emissions from Mexicali.

Response 0006-002

The information presented in the comment appeared to be out of date. The EPA published a final rule on August 11, 2004, to reclassify the Imperial Valley from a moderate to a serious PM₁₀ nonattainment area (69 FR 48792). This rule became effective on September 10, 2004. The EPA’s summary of this final rule is:

“EPA is taking final action under the Clean Air Act (CAA) to find that the Imperial Valley Planning Area (Imperial Valley), a moderate nonattainment area for particulate matter of 10 microns or less (PM₁₀), failed to attain the National Ambient Air Quality Standards (NAAQS) by the statutory deadline of December 31, 1994, and to reclassify the area as a serious PM-10 nonattainment area. Today’s action is in response to a recent decision by the U.S. Court of Appeals for the Ninth Circuit that vacated EPA’s earlier approval of Imperial County’s demonstration that the Imperial Valley would have attained the NAAQS by December 31, 1994, but for emissions emanating from outside the United States, i.e., Mexico. EPA’s approval had the effect of allowing Imperial Valley to remain a moderate nonattainment area. In vacating that approval, the Court specifically directed EPA to reclassify Imperial Valley as a serious PM₁₀ nonattainment area.”

The EPA simultaneously signed a proposed rule on August 11, 2004, to find under the CAA that the Imperial Valley Planning Area failed to attain the NAAQS for PM₁₀ by the serious nonattainment area statutory deadline of December 31, 2001 (69 FR 48835).

The analyses of pollutant transport presented in the EIS appear not to conflict with the findings of the 2003 order of the Ninth Circuit and the subsequent 2004 final rule published by the EPA.

Comment 0006-003

After review, the County also feels that the Draft EIS and Health Risk Assessment submitted by the U.S. DOE and BLM on the 230-kV transmission lines do not provide the necessary

mitigation to resolve the existing/future air impacts on local residents, the water impacts on the Salton Sea and human health impacts and is inadequate due to the continued lack of appropriate environmental mitigation.

Response 0006-003

The EIS analyzes a mitigation alternative that examines opportunities for mitigating both air and water impacts of the proposed project. DOE and BLM have added additional discussion of potential water mitigation measures in Section 2.4 and refined the analysis of these potential mitigation measures in Section 4.2.6 of the EIS.

Comment 0006-004

There are identified proposals for mitigation of air emissions in imperial County and Mexico on pages 4-58 and 4-59. However, there is no “program” provided in the Draft EIS document as to who will pay and maintain the proposed mitigation measures.

There is no identification of when such mitigation activities would occur and who would be the responsible agency that would implement these mitigation measures. Without specificity in the Final EIS, the proposals put forth are merely possibilities and not actual, verifiable and enforceable mitigation measures.

We look forward to reviewing the Final EIS and if does not provide the necessary mitigation measures that comprehensively mitigates all of the identified risks, the County reserves the right to review other options necessary to insure that the above adverse environmental and health care concerns are resolved.

Response 0006-004

Regarding mitigation, the EIS identifies opportunities for both air and water mitigation. Should the mitigation alternative be selected, mitigation details would be specified in a mitigation action plan issued after the completion of the EIS.

**COMMENTOR 0007: Stephen Birdsall, Air Pollution Control Officer
Imperial County Air Pollution Control District**

Comment 0007-001

The ICAPCD favors a modified #4 alternative that was analyzed - “Mitigation Measures: Grant one or both permits and corresponding ROWs to authorize transmission lines whose developers would employ off-site mitigation measures to minimize environmental impacts in the United States” (pg. S-9) The ICAPCD feels that there should be mitigation measures implemented to offset the increased emissions and that these measures should be memorialized in The Presidential permits, however, the ICAPCD believes one step further should be taken to ensure the *off-site* mitigation measures take place in Imperial County.

Response 0007-001

The commentor's stated preference for Alternative 4 is noted. Regarding conditioning the Presidential permits, please see the response to Key Issue 3.

Comment 0007-002

Section 3.3.2, Air Quality (page 3-49) presents a broad scenario of the air quality in Imperial County and Mexicali Valleys for the principal air pollutants that are monitored in both valleys: Carbon Monoxide Nitrogen Dioxide, Ozone, Sulfur Dioxide and PM₁₀. This document evaluation approach assesses the air quality in both valleys based on the annual arithmetical mean for each of these pollutants.

ICAPCD believes that an evaluation of the regional air quality based on the annual arithmetical means as presented in this document is clearly an attempt to diminish the magnitude of the air quality problem in the Imperial and Mexicali Valleys. The ICAPCD is adamant about the fact that the public should be presented with reliable and clear air monitoring data in order to make an accurate judgment of the magnitude of the existing air quality problem on the area in which these power plants are located, as well as the area of impact, in this case Imperial County.

The NAAQS establishes the concentration above which the pollutant is known to cause adverse health effects to sensitive groups within the population, such as children and the elderly. An evaluation of the status of the air quality on a region should include an analysis of compliance with the NAAQS for each pollutant that is being evaluated.

According to the air monitoring data for Imperial County, the 24-hr NAAQS for PM₁₀ was violated 12 days in 1997, 12 days in 1998, 32 days in 1999, 38 days in 2000, and 18 days in 2001. In addition, the 1-hr ozone NAAQS was violated 10 days in 1997, 5 days in 1998, 24 days in 1999 and 5 days in 2000.

In comparison, the air monitoring data for Mexicali shows that the 24-hr NAAQS for PM₁₀ was violated 162 days in 1997, 168 days in 1998, 222 days in 1999, 324 days in 2000, 264 days in 2001 and 228 days in 2002. The 1-hr ozone NAAQS for ozone was violated 16 days in 1997, 14 days in 1998, 19 days in 1999 and 7 days in 2000. In addition, the 1-hr NAAQS for CO was violated 5 days in 1997, 11 days in 1998, 4 days in 1999, and 3 days in 2000.

As you can clearly see by the number of standard exceedances mentioned above, the air quality in the Imperial County and Mexicali has been and continues to be deteriorated. The high levels of PM₁₀ and CO in Mexicali has been categorized as critical by the Mexican authorities. Imperial County is a designated non-attainment area for PM₁₀, Ozone, and CO for the City of Calexico, located on the border with Mexicali. Likewise, Mexicali is a non-attainment area for PM₁₀, Ozone and CO. It should be pointed out that Mexicali is in violation of the U.S. ambient air quality standards and also the Mexican air quality standards, which are similar to the U.S.

The ICAPCD suggests that the final document include a comprehensive evaluation of the air quality in Imperial County and Mexicali Valleys addressing all air monitoring data used to evaluate the compliance status of both areas with NAAQS.

Response 0007-002

Pursuant to NEPA, Section 4.3.4.4.2 of the EIS provides a comprehensive analysis of the impact on air quality of the proposed action and alternatives. As shown in Section 3.3.2, the compliance status of Imperial County is addressed. Table 3.3-3 showing NAAQS exceedances and maximum air pollutant concentration measurements in Imperial County for O₃, CO, and PM₁₀ from 1987 through 2003 has been added to Section 3.3.2. The EIS does not summarize air quality in Mexico, please see the response to Key Issue 1.

Comment 0007-003

Section 4.3.4.4.2, Ozone Formation (page 4-50): Due to the fact background data on VOC levels is needed to model Ozone (O₃) formation, DOE developed an alternative approach to help characterize ozone formation in this region. DOE analyzed 5 years of O₃ and NO₂ monitoring data and concluded that high O₃ levels mainly occurred at lower NO₂ levels and that in fact; these plots indicate a condition in which introducing more NO₂ reduces O₃ formation. These conclusions characterized the Imperial County-Mexicali area to be VOC-limited, in which by introducing more NO₂ there would be no increase in O₃, when in fact, the reverse could hold true.

The ICAPCD is dumbfounded by these conclusions and can only hope that you do not mean that by *not* installing SCR to control nitrogen oxides at the turbines, it could in fact resolve the O₃ problem in the Mexicali and Imperial Valley area.

The 2003 emission inventory for Imperial County shows emissions of 12,940 tons/yr of nitrogen oxides and 52,720 tons/year of VOC. As for Mexicali, the 1996 emission inventory shows emissions of 20,302 tons of nitrogen oxides and 56,552 tons/year of VOC. This data shows that the level of emissions for VOC is approximately three times higher than the level of emissions for nitrogen oxides.

These figures show that the mechanism of O₃ formation in the Imperial County-Mexicali area cannot be characterized to be VOC-limited. ICAPCD suggests that Section 4.3.4.4.2, Ozone Formation, should be modified accordingly.

Response 0007-003

Section 4.3.4.4.2, Ozone Formation, has now been simplified and the reference to the historic record of the relationship of higher O₃ levels to lower NO₂ levels has been removed. The EPA's OZone Isopleth Plotting Program Revised (OZIPR) model was used to estimate possible incremental O₃ formation, and it was shown that NO_x and VOC emissions from all the Mexico power plants would produce marginal decreases or increases in peak O₃ concentrations. Generalizations about NO_x versus VOC-limited

conditions reflect average regional conditions. An OZIPR simulation based on annual total emissions and typical meteorological conditions is illustrated in Figure 4.3-1. In this case, adding more SCRs for NO_x control decreases NO_x emissions but has the effect of slightly increasing modeled peak O₃ concentrations. The modeled Imperial Valley-Mexicali region appears to behave, on average, similar to an urban-like VOC-limited area (i.e., where O₃ levels are limited — “controlled” — by VOCs, not NO_x).

DOE and BLM disagree with various elements in the Imperial County Air Pollution Control District’s (ICAPCD’s) statement that because the 2003 levels of VOC in Imperial County at 52,720 tons/yr (47,827 t/yr) and at Mexicali at 56,552 tons/yr (51,303 t/yr) are approximately three times the NO_x levels in Imperial County at 12,940 tons/yr (11,739 t/yr) and at Mexicali at 20,302 tons/yr (18,418 t/yr), respectively, the Imperial Valley-Mexicali region cannot be characterized to be VOC-limited.

First, the data as quoted are incorrect and appear to be based on a misinterpretation of the term VOC. There are a number of different terms that collectively refer to organic compounds that participate in photochemical reactions to form tropospheric O₃. Some of the more common terms are VOC - volatile organic compounds, TOG - total organic gases, and ROG - reactive organic gases. VOC is an EPA term, and TOG and ROG are terms used by the California Air Resources Board (ARB). VOC are not TOG. TOG includes organic gases that have negligible photochemical activity — primarily methane — whereas both VOC and ROG exclude organic compounds that have negligible photochemical activity — also primarily methane. The terms ROG and VOC are broadly interchangeable.

“52,720 tons/year of VOC” 2003 as quoted by the ICAPCD appears to have as its source the ARB (2003) database value for Imperial County of 52,720 tons/yr (47,827 t/yr) of TOG (not VOC). The same ARB (2003) database for Imperial County also lists emissions of 11,840 tons/yr (10,741 t/yr) of ROG (a VOC equivalent). Thus the actual 2003 VOC emission estimates of 11,840 tons/yr (10,741 t/yr) are much less (about 22%) than the TOG value of 52,720 tons/yr (47,827 t/yr) misattributed as VOC by the ICAPCD. The ARB database lists 12,940 tons/yr (11,739 t/yr) of NO_x, and thus relative to 11,840 tons/yr (10,741 t/yr) of VOC, the VOC/NO_x ratio in the Imperial County area would be about 1/1.

The Mexicali 1996 VOC emission estimate quoted by the ICAPCD of 56,552 tons/yr (51,303 t/yr) appears to have as its source ERG et al. (2003). However, that 1996 56,552-tons (51,303-t) estimate is listed in hydrocarbon (HC) units and does not accurately reflect a VOC estimate. ERG et al. (2004) does list VOC emission estimates, in this case of 35,765 tons/yr (32,446 t/yr). This is substantially lower than the 1996 level listed as 56,552 tons/yr (51,303 t/yr) of HC. The 1999 NO_x emissions are reported as 11,787 tons/yr (10,693 t/yr), and thus relative to 35,765 tons/yr (32,446 t/yr) of VOC, the VOC/NO_x ratio in the Mexicali area would be about 3/1.

The VOC/NO_x ratio in the Imperial Country and Mexicali area combined would be about 2/1. VOC/NO_x ratios based on annual emission rates alone are insufficient to establish

that an area is VOC-or NO_x-limited. However, a determination that the modeled area is VOC-limited is not a necessary precondition for the results obtained in the O₃ analysis in the EIS using the OZIPR model. Those results, shown in Figure 4.3-1, are nevertheless consistent with a VOC-limited situation, where O₃ levels increase with increasing VOC, but decrease or are relatively unresponsive to changes in NO_x.

Comment 0007-004

Section 4.3.4.4.2, Impacts Compared to EPA Significant Levels (page 4-52), evaluates the impact in Imperial County for the NO₂, SO₂, CO and PM₁₀ emissions produced by the power plants based on the EPA Significant Levels (SLs) of 40 CFR 51.165(b)(2). This document concluded that the maximum increase in ambient concentration of air pollutants in Imperial County associated with emissions from the power plants are below the SLs established by the EPA; therefore, the impact on air quality from the generating facilities in Mexicali would be minimal.

By using 40 CFR 51.165(b)(2) to determine impact of the power plant, DOE assumed that Mexicali is a hypothetical attainment area. ICAPCD wants to stress with emphasis that the EPA Significant Levels of 40 CFR 51.165 (b)(2) is not applicable to new sources in a non-attainment area (Mexicali) that are impacting an adjacent non-attainment area (Imperial County). The next paragraph of 40 CFR 51.165(b)(4) states *“The requirements of paragraph 51.165 (b) of this section shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that as to that pollutant, the source or modification is located in an area designated as non-attainment pursuant to section 107 of the Act.”*

As presented above, monitoring data has shown that concentrations of PM₁₀, CO, and Ozone have exceeded the U.S. and Mexican Ambient Air Quality Standards many times in Mexicali and the surrounding area. Therefore, the application of the Significant Levels of 40 CFR 51.165(b)(2) is totally inappropriate because it does not accurately reflect the reality of the air quality in Mexicali and Imperial County, which is already very deteriorated. The ICAPCD feels that due to the proximity of these projects to the international border and the populated cities in Imperial County and Mexicali, the additional emissions associated with the two projects will adversely impact the region's air quality, exacerbate exceedances of emission standards in both the U.S. and Mexico, and will impact the health of the population in the region.

Due to the fact that Mexicali power plants are located in a non-attainment area (Mexicali) and that their emissions will impact a adjacent non-attainment area (Imperial County) the ICAPCD feels that the correct approach for evaluating the emission impacts should be through the Clean Air Act (CAA) Section 173. This section identifies the requirements for new and modified sources located in non-attainment areas. Section 173 (c)(1) requires that any new or modified source of emissions located in a non-attainment area to offset their emissions for which that area is non-attainment.

The ICAPCD would like to stress again that we believe that there should be mitigation measures implemented to offset the increased emissions and that these measures should be memorialized

in the Presidential permits, however, the ICAPCD would like DOE/BLM to ensure the *off-set* mitigation measures take place in Imperial County.

Response 0007-004

Regarding the use of SLs, please see the response to Key Issue 2. Regarding the inclusion of mitigation measures in the Presidential permits, see the response to Key Issue 3. The commentor's preference for the mitigation alternative is noted.

Comment 0007-005

Given the fact that DOE has chosen to apply CAA requirements to evaluate the impacts from the Mexicali plants on Imperial County, the DOE must rigorously follow the requirements in the CAA and not simply choose requirements that they feel will achieve the end result that DOE is apparently looking for - No Significant Impact.

The air quality data summary for Mexicali's Ozone, PM₁₀, and CO exceedances provided in this comment letter (item 1) gives a much more comprehensive understanding of the high rate of NAAQS exceedances in Mexicali. The NAAQS are health based standards. The ICAPCD feels that use of the international border as a shield to avoid implementing mitigation measures, specifically offsets, that would adequately protect U.S. and Mexican citizens being exposed to air emissions from the power plants is contrary to what the NEPA process was established to accomplish. By failing to include offset measures for the emission from the power plants will exacerbate the poor a quality in the region and cause additional adverse health impacts to the residents of Imperial/Mexicali Valleys.

As noted in the July 3, 2003 Court Order (Draft EIS, pg A-70) "...as a matter of common sense, it is clear that discharges of pollutants that actually, if not legally, cause violations of the NAAQS, or make existing violations worse, have the potential for adversely affecting health." This observation is in response to the fact that even a 3 μ g/m³ increase in the 24-hour PM₁₀ concentration would have caused two particulate monitoring stations in Calexico to exceed the 150 PM₁₀ NAAQS eight times between 1994 and 2002 (Draft EIS, pg A-69).

Response 0007-005

Regarding the application of CAA requirements to evaluate impacts, please see the response to Key Issue 2. Regarding additional NAAQS violations, please see the response to Key Issue 9.

Comment 0007-006

Section 4.3.4.4.2, Impacts Compared to EPA Significant Levels (page 4-53); DOE states "The finding that the impact levels at the U.S. receptor points would be small and below SLs is consistent with the influence of general surface winds." However, the ICAPCD believes this is totally inaccurate.

The California Air Resources Board (CARB), the authority on air issues in California, evaluated the impact of transport of ozone within the different air basins in California. CARB publishes triennial reports entitled “Assessment of the Impacts of Transported Pollutants on Ozone Concentrations in California.” In these reports, CARB has classified transport of ozone from Mexicali to Salton Sea Air Basin, which Imperial County is located in, as overwhelming. CARB’s report illustrates that transport of ozone from Mexicali caused violations of the state ozone standard (0.09 ppm) all the way to the north side of the Salton Sea Air Basin, in Palm Springs and Indio. This report shows, for the episodes analyzed, that none of the violations of the state standard in Imperial County were caused entirely by local emissions without regard to transport from Mexicali.

In July 2001, the ICAPCD submitted a PM₁₀ attainment demonstration plan to CARB and EPA that clearly shows that Imperial County’s PM₁₀ exceedances would not have occurred “but for” contributions from Mexicali. On August 10, 2001, EPA found under Clean Air Act (CAA) Section 179B that the PM₁₀ attainment demonstration submitted by the ICAPCD adequately established that PM₁₀ exceedances would not have occurred but for emissions from Mexico. On October 19, 2001, EPA issued its final rule, finding that the record adequately demonstrated that, but for emissions from Mexico, Imperial County would have timely attained the PM₁₀ NAAQS (Federal Register: Volume 66, Number 203, pages 53106-53112).

The information discussed and cited above clearly indicates that Imperial County is impacted by transport of emissions from Mexicali. The ICAPCD suggests that DOE include a comprehensive analysis of Ozone and PM₁₀ transport from Mexicali to Imperial County based on existing validated reports from authorities in this subject, such as the California Air Resources Board and U.S. EPA.

Response 0007-006

The issues raised in the first part of this comment about the O₃ analysis described in Section 4.3.4.4.2 of the DEIS and the role of O₃ transport into Imperial County are addressed in the response to Key Issue 11. Section 3.3.2 references the transboundary migration of pollutants from Mexico. A reference to the 1993 ARB report noted in the comment has been added to this section.

The second part of the comment states that in July 2001, the ICAPCD submitted a PM₁₀ attainment demonstration plan to the ARB and the EPA that clearly demonstrated that Imperial County’s PM₁₀ exceedances would not have occurred but for contributions from Mexicali. The ICAPCD adds that on October 19, 2001, the EPA issued a final rule that, but for the negative effects of transborder emissions from Mexico, Imperial County would have timely attained the PM₁₀ NAAQS (Federal Register, Volume 66, page 53106 [66 FR 53106]). However, the ICAPCD neglects to add that on October 9, 2003, the U.S. Court of Appeals for the Ninth Circuit vacated this EPA rule following a petition from the Sierra Club to that Court. The Court held that the EPA’s “but for” conclusion ran counter to the evidence before it, and remanded with instructions that the EPA classify the county from a moderate to a serious nonattainment area (Sierra Club v. United States Environmental Protection Agency, et al., 352 F.3d 1186).

Thus prompted by the Ninth Circuit Court Order, the EPA published a final rule on August 11, 2004, to reclassify the Imperial Valley from a moderate to a serious PM₁₀ nonattainment area (69 FR 48792). This rule became effective on September 10, 2004.

The EPA simultaneously signed a proposed rule on August 11, 2004, to find under the CAA that the Imperial Valley Planning Area failed to attain the NAAQS for PM₁₀ by the serious nonattainment area statutory deadline of December 31, 2001 (69 FR 48835).

The analyses of pollutant transport presented in the EIS appear not to conflict with the findings of the 2003 order of the Ninth Circuit and the subsequent 2004 final rule published by the EPA.

Comment 0007-007

Section 6.4, Air Quality (page 6-2) states that the Mexico power plants' stack emissions would include NO_x, CO, CO₂, NH₃, and PM₁₀. While it is likely that O₃ would be secondarily produced due to the operation of the two power plants, the amount expected to reach the maximum U.S. receptor point is so small it would be indistinguishable from ambient background levels. PM₁₀ and other criteria pollutants are expected to be below EPA significant levels in the United States.

ICAPCD totally disagrees with these statements. It is estimated that the La Rosita Power Complex and Sempra Energy Resources turbines (six total) will produce 2,328 tons/yr of nitrogen oxide, 3,089 tons of carbon monoxide, and 1,210 tons/yr PM₁₀. According to the estimates presented in the DEIS, the nitrogen dioxide emissions will be reduced to 608 tons/yr (for all six units) in March 2005 when selective catalytic reduction technology would be utilized for all the La Rosita Complex turbines. Each air shed has a limited capacity for absorbing pollutants before the air quality degrades to unacceptable levels. The air emissions from the Mexicali power plants is way above the limits that non-attainment areas such as Mexicali and Imperial County could absorb.

Imperial County is a non-attainment area for PM₁₀ and ozone, of which nitrogen oxide is a precursor pollutant, and concentrations of PM₁₀ and Ozone in Mexicali have exceeded the U.S. and Mexican standards many times. Contrary to all the statements in this DEIS, the ICAPCD feels that these emissions would have a significant adverse impact on the air quality for the Imperial County/Mexicali air shed, if unmitigated, due to the fact that these emissions will exacerbate the non-attainment ozone and PM₁₀ status of the Imperial County/Mexicali border region. Additionally, due to the proximity of these power plants to the border, the carbon monoxide (CO) emissions from these power plants will have an adverse impact on the non-attainment status for Calexico if these emissions are not mitigated. The District requests to incorporate into this document measures for full mitigation of **all** emissions.

Response 0007-007

The findings and conclusions on air quality impacts, which are discussed in some detail in the EIS, were based on careful objective quantitative analysis and scientific method

drawn from available data, and applied conservatively high emission assumptions. For example, PM_{10} emission rates were based on conservative vendor guarantees. Actual emission rates have been determined to be an order of magnitude less (see Comment 0018-005). Air modeling used state-of-the art tools, such as the EPA-approved AMS/EPA Regulatory MODEL (AERMOD) model. The disagreement of the ICAPCD is noted.

Regarding mitigation, the EIS identifies opportunities for both air and water mitigation. The identified air mitigation measures would collectively address the major pollutants noted in the comment — NO_x , CO, and PM_{10} . Should the mitigation alternative be selected, mitigation details would be specified in a Mitigation Action Plan issued after the completion of the EIS.

Comment 0007-008

In Conclusion, the ICAPCD is eager to review a Final EIS that will fully address all of our concerns as discussed above. For the health of the residents of Imperial/Mexicali Valleys and for the continued efforts to improve air quality in Imperial County, the ICAPCD continues to insist that full mitigation of the impacts of these projects be fully mitigated. The ICAPCD also feels it is necessary to include the Presidential Permits provisions for monitoring, record keeping, and enforcement provisions based on our experience with Interger's failure to install SCR on one of the two turbines and the fact that Mexicali authorities were apparently unaware that Interger even had an obligation to install and operate SCR on the unit. The permit condition must clearly state that monitoring data must be routinely provided to the ICAPCD. Once again, for issuance of the Presidential permits, the ICAPCD urges the DOE/BLM to implement a version of Alternative #4 that would require full mitigation of emissions and offset of emissions that have already occurred. The ICAPCD insists that these mitigation measures be taken in Imperial County to ensure that the reductions are real, enforceable, and quantifiable.

Response 0007-008

Regarding conditioning the Presidential permits, please see the response to Key Issue 3. The commentor's stated preference for Alternative 4 is noted.

COMMENTOR 0008: Paul B. English

Comment 0008-001

The draft Environmental Impact Statement for the Imperial Mexicali 230-kV Transmission Lines states that 24-hour concentrations of PM_{10} at a maximum receptor point in the United States resulting from emissions from TDM plus LRPC Export Turbines would be $2.45\mu\text{g m}^3$ (Section 4.4.4.4.2). This is adding pollutants in an area already out of state and federal air quality compliance for PM_{10} . Imperial County, and the Salton Sea Air Basin in particular, do not meet the state or federal air quality standards for ozone or particulate matter less than 10 microns in

diameter (PM₁₀) (CARB, 2002). Between 1983 and 1994, age-adjusted childhood asthma hospitalization rates increased 59% in Imperial County. (English, et. al. 1998).

Exposure to particulate matter has been associated with an increase in cardio-pulmonary mortality and increased reports of asthmatic symptoms and respiratory illness. (Koren, 1995) (Pope and Dockery, 1999) Emergency room visits for asthma have been significantly associated with fine particulate matter air pollution on the previous day. (Schwartz et al. 1993).

The draft EIS states that “the operation of the TDM plant and the EBC and EAX export units at the LRPC plant would contribute at most a very small increase in the asthma problem or other air-quality related health problem.” The 2.4 µg/m³ is only slightly lower than the 3.0 µg/m³ figure estimated in the Draft Environmental Assessment (EA) for the Baja California Power (BCP) and Sempra Energy Resources Cross-Border Transmission Lines (DOE/EA-1391). Based on the 3.0 µg/m³ figure, I estimated in my June 2003 declaration that a 3.0 µg/m³ increase in PM₁₀ would result in an increase of 80 additional cases of asthma in the Calexico School District alone (English, 2003). Even with the new figure of 2.45 µg/m³ we could expect at least an additional 65 cases of asthma. Asthma is the leading cause of lost school days and of childhood hospitalizations in California. In the Imperial Valley, an area with poor health care access and high proportion of uninsured children, many children with asthma end up being hospitalized. This is a large burden on a low-income, minority population in terms of work missed, days of school missed, and increased cost of medication use.

The Draft EIS states that since the projected level of 2.45 µg/m³ is below the EPA significance levels they are of limited public health concern. However, this is adding an increased burden of PM₁₀ in a population that is already in non-attainment for PM and suffering from the highest childhood asthma hospitalization rate in the State. According to the California Department of Health Services, Imperial County had the highest age-adjusted asthma hospitalization rate for children aged 0-14 among all counties in the State of California for 1995-1997 (556 cases per 100,000 population compared to 216 cases per 100,000 for California) (CDHS, 2000). Each stay in the hospital costs the State \$13,000. (CDHS, 2000). Since the linear relationship between PM and health is accepted as causal, with no threshold, even a small increase can have large public health effects. The EPA SL has been defined “to represent the incremental increase in ambient concentrations attributable to an emissions source below which the source would not be considered to cause or contribute to a violation of the applicable National Ambient Air Quality Standards” (Fontana, 2003). However, data analyzed in Calexico from 1994 to 2002 (English, 2003, Exhibit 1) shows that on eight occasions readings at Calexico PM₁₀ monitors would be exceeding the 150 µg/m³ standard when an additional 3 µg/m³ is added. On these days the power plant emissions would be in fact contributing to a violation of the 24-hour PM₁₀ federal air quality standard.

Response 0008-001

Section 4.11.4.2 of the DEIS acknowledged that there is a high incidence of asthma in Imperial County. References to published data on the high incidence of asthma hospitalization in Imperial County and on the association between elevated PM₁₀ levels and an increased incidence of acute adverse health outcomes have been added to the EIS.

(Incidence is defined as the number of new occurrences of a disease in a given time period.) Elevated O₃ levels are also associated with asthma symptoms. A reference to a state study giving the annual incidence of hospitalizations for asthma by county for the State of California has been added to support the statement that levels of asthma are high in Imperial County. Information and references on the association between elevated PM₁₀ and O₃ levels and high asthma levels have also been added to the FEIS in Sections 4.11.2.2 and 4.11.2.3.

Sixty to eighty cases of asthma annually are unlikely to be caused by the increase in ambient PM₁₀ from power plant emissions as explained below. On the basis of results from many studies, it is estimated that for each 10- $\mu\text{g}/\text{m}^3$ increase in PM₁₀, there is an associated 3% increase in the incidence of respiratory-related death, hospitalizations, lower respiratory symptoms, and asthma (Pope and Dockery 1999). On the basis of this relationship, the maximum modeled increase of 2.45 $\mu\text{g}/\text{m}^3$ in ambient PM₁₀ levels associated with the power plant turbines could be responsible for a 0.735% increase in the incidence of asthma (the commentor rounded this relationship to 1%). However, this increase in the incidence of asthma should not be applied to the entire population of the 8,000 children in the Calexico school district, but rather to the fraction that has the condition (i.e., the prevalence; 80 children [English 2003]).

The prevalence rate for asthma among the 8,000 Calexico school children is stated to range from 15 to 27%, based on a 2001 impact assessment referenced by the commentor (English 2003). To estimate the increase in asthma prevalence, the number of prevalent cases (i.e., 1,200 to 2,160) would be increased by 0.735%. Thus, the estimated increase in asthma cases would be about 9 to 16 cases.

However, using prevalence data to estimate the number of additional asthma cases attributable to a given increase in ambient PM₁₀ level is not the most appropriate measure of impacts. The number of additional cases is preferably calculated as a fraction of the documented incidence rate; for example, as a fraction of the number of annual hospitalizations in the area of interest. These data are available for Imperial County (CDHS 2003). Another commentor (Heisler, attachment to Comment 0016-009) used a method similar to that to estimate the annual numbers of hospitalizations in Calexico attributable to power plant emissions. He used the age-adjusted hospitalization rates for all of Imperial County and for the population between 0 and 14 years, and applied those rates to the population of Calexico (not to all of Imperial County). This method resulted in a much lower estimate of asthma hospitalizations in Calexico attributable to the power plants (less than one additional hospitalization per year).

For this EIS, to estimate the maximum annual increase in asthma hospitalizations in Imperial County, the overall age-adjusted hospitalization rate of 196 per 100,000 person-years, as reported by the California Department of Health Services (CDHS 2003), was multiplied by the estimated county population for 2003 of 156,600 (State of California 2004). This resulted in an estimate of 323 hospitalizations per year. To estimate the increase in asthma hospitalization incidence potentially due to power plant emissions, the number of cases (i.e., 307) would be increased by 0.735%. Thus, the

estimated maximum increase in asthma hospitalizations in Imperial County would be about two to three cases. This is an overestimate, because the 2.45- $\mu\text{g}/\text{m}^3$ modeled increase is the maximum increase averaged over 24 hours at any location in the border region at any time. The annual average increase, which should be used in health impact estimates, is 0.11 $\mu\text{g}/\text{m}^3$ (Table 4.3-4). Thus, the expected increase in asthma hospitalizations is less than one per year. A discussion of these results has been added to the EIS (Section 4.11.2.3).

These results support the conclusion in the EIS that the operation of the power plants would result in “at most a small increase in the asthma problem or other air-quality related health problems”(in Imperial County). This finding is noted in Key Issue 13.

Regarding estimating the number of additional exceedances of the NAAQS in Imperial County from power plant emissions, please see the response to Key Issue 9.

The EIS’s use of SLs to evaluate the modeled maximum increase in levels of criteria pollutants is intended to be a benchmark of potential impacts to air quality from power plant emissions. In such case, the use of SLs does not have regulatory implications. The SLs evaluate air concentration increases, which are a direct measure of human exposure. SLs are based on corresponding NAAQS, which have a basis in human health (e.g., the SLs for nitrogen dioxide (NO_2), PM_{10} , and CO are 1%, 3%, and 5%, respectively, of the NAAQS.

COMMENTOR 0009: Kimberly Collins

Comment 0009-001

I’m not surprised by the findings of the report — it contains the same, old and tired way of thinking by the U.S. federal government bureaucracy in not recognizing the U.S.-Mexican border as a region in which air, water, health issues, and economies are shared. This is clearly seen in the report on page S-4 in that the map does not really extend into Mexico and is not to scale on the Mexican side. This portrays the sentiment that here we are on the U.S. side and we are not so sure what is happening on the Mexican side except that there are these plants and wastewater treatment plant located approximately in this location.

Air and water don’t follow the political boundaries of governments they follow the natural flow of the earth. The EIS must conduct a binational and regional analysis—to do otherwise is a half completed job that does not address the real situation.

Response 0009-001

Regarding analyzing impacts in Mexico, please see the response to Key Issue 1.

Comment 0009-002

I find it ironic that this review is occurring during the year of the 10th anniversary of NAFTA and really shows that the border region has become the doormat of NAFTA. It is a place to scrape your boots and pass through collecting monies that are sent to Washington—not a place to worry about human health problems, environmental degradation, or future development of the region. Ten years ago it was hoped by some that if NAFTA was passed and free trade in the Americas became a reality, the border would get much needed attention and funding. This clearly is not happening as seen by the results of this report. Instead of providing investment and infrastructure to begin sustainable development in the region, new projects that contaminate the area are being embraced.

Response 0009-002

Comment noted.

Comment 0009-003

Public interest on page S-7 needs to be defined. There is a huge difference between the public interest regarding the environment and human health impacts and that of the current reliability of U.S. electric power. It is not and I repeat not in the public interest of Imperial County residents to have these two power plants.

Response 0009-003

In determining whether a proposed action is in the public interest, DOE considers the impact of the proposed action on the environment and on the reliability of the U.S. electric power supply system. The fact that the environmental impacts in the United States are confined to Imperial County is acknowledged in the EIS.

Comment 0009-004

Socioeconomic impacts — Section 5.4.10

The costs to the local economy—which are not addressed sufficiently or appropriately by the Draft EIS—will exceed any benefits that might possibly be derived (such as property taxes). The local economic costs will include lost economic development opportunities as large companies are leery to come to areas that have high amounts of pollution. There will also be public health costs that will be incurred by local governments to care for low income residents, especially uninsured children. There will also be costs to production to local businesses and individuals with sick days — be it a worker who is sick with respiratory illnesses and needs to take a day off to visit with the doctor or for the worker with a sick child with asthma or a respiratory illness. These are just a limited example of possible costs that were not included in the draft EIS. I'm sure if someone did an actual analysis they might find more.

Response 0009-004

Analysis of air quality impacts conducted for the EIS compared modeled increases in ambient air concentrations of criteria pollutants due to power plant emissions over a grid of receptor locations in the county and found that increases were below SLs used as a benchmark of high and adverse impacts. Since the plants would not produce any significant impacts in the county, no significant impacts on local public health or on local economic development are expected as a result of emissions from the power plants.

Comment 0009-005**Human Health — Section 5.4.11**

The human health issues are not addressed in the Draft EIS. The Imperial-Mexicali valleys are already non-attainment areas. There are already severe levels of asthma and respiratory illnesses in the community. I would actually hypothesize that there have already been additional human health impacts by these power plants just from the short time they have been running. I base this on two factors. The first is that with an already stressed environment and human health system, additional pollutants to the system, even at a small level, could tip the scales and push health of local residents into dangerous levels. By talking to my coworkers at my place of work, I along with them have experienced chronic respiratory infections over the last eight months. I literally have been sick for months now. If a stringent analysis was actually conducted on the health of residents in the region — I'm sure you would find that there has been an impact from the power plants.

Response 0009-005

It is clear that there is a high incidence of asthma in Imperial County. A reference to a study (Collins et al. 2003) showing the high county rates of childhood and adult asthma hospitalizations for the years 1995 through 1997 has been added to Section 4.11.4.2 of the EIS. A reference (Thurston and Ito 1999) to a summary of studies documenting an approximate 18% increase in the incidence of respiratory-related hospital admissions for each 100-ppb increase in the airborne O₃ concentration has also been added to the EIS (Section 4.11.2.2). Table 4.3-7 of the EIS indicates that peak O₃ levels are expected to increase by less than 1 ppb as a result of power plant operations, so it is unlikely that O₃ associated with the power plants is contributing to the asthma problem in Imperial County.

Power plant contributions of criteria pollutants, including PM₁₀ and NO_x, have shown to be below EPA SLs. Nonetheless, an estimate of the maximum number of increased asthma cases from PM₁₀ emissions has been added to the EIS. As stated in Section 4.4.4.4.2 of the EIS, the maximum modeled increase over a 24-hour period in ambient levels of PM₁₀ associated with the TDM and LRPC turbines was 2.45 µg/m³. The increase in PM₁₀ levels is estimated to cause less than one additional hospitalization for asthma per year in Imperial County (see the response to Comment 0008-001). This is likely to be an overestimate, because the 2.45-µg m³ modeled increase is the maximum increase at any location in the border region at any time, rather than an average

increased exposure condition. A discussion of asthma incidence has been added to the EIS (Section 4.11.2.3). Finally, a human health risk assessment of plant emissions of HAPs is presented in Appendix H, which indicates that risks are below levels that could increase health impacts.

Comment 0009-006**Minority and Low-Income Populations — Section 5.4.12**

The environmental justice issues are not sufficiently answered. Imperial County is 73% Hispanic; the education rates are half the state average; the unemployment rates are 3 times the state averages. The unemployment rates on page 3-97 are incorrect in Table 3.9-2. I can assure you that the unemployment rate in the Imperial County was not 4.9% in 2003—it was over 23%. Last month the unemployment rate was over 18%. The Draft EIS must go back and appropriately address the environmental justice aspects of the power plants and the related

Response 009-006

The EIS used the rate for persons in the county registering to claim unemployment benefits as the basis for establishing the extent of unemployment in the county. While additional persons who were not registered to receive benefits may be considered to be unemployed, establishing an accurate count for these individuals is not possible.

Comment 0009-007**The issues outside the Scope of the EIS — Section 1.3.2**

This federal action does affect the global commons. Power plants are known to contribute to global warming. These plants are also impacting a binational region. It is impossible to only recognize the transmission lines and not consider the power plants — they function together. Without the power plants, there would be no need for the transmission lines.

Response 0009-007

The impact of power plant CO₂ emissions in the context of global climate change is analyzed in Section 4.3.4.4.3 of the EIS. It is concluded there that impacts would be negligible.

Comment 0009-008

Finally, this report tells the residents/taxpayers of Imperial County and Mexicali that there will be impacts to our environment and health but that our public interest does not matter to the DOE because we are a poor, disenfranchised people—if that does not scream environmental justice than I don't know what does.

Response 0009-008

The analysis of environmental justice issues in the EIS was performed according to guidelines established by the CEQ, with an analysis undertaken at the relevant geographic scale (the block group level), using the appropriate reference populations (the state total low-income and minority populations). Analysis of noise and dust issues along the route of the transmission lines used a 2-mi (3-km) corridor as the relevant affected area, and the analysis of air quality issues used the county as the appropriate scale of analysis.

The analysis found that temporary noise and dust emissions from construction and long-term noise effects from EMF would not produce high and adverse impacts on the general population along any of the transmission line routes. Construction and operation would not, therefore, adversely or disproportionately impact low-income or minority populations, regardless of the concentration of these populations in the vicinity of the transmission lines corridor.

Analysis of air quality impacts compared local-level emissions at a series of receptor stations in the county and found that increases in PM_{2.5} and PM₁₀ emissions due to power plant emissions were below new source SLs used as a benchmark for negligible impacts. Since the plants would not produce high and adverse impacts on the general population in the county, they would not adversely or disproportionately impact low-income or minority populations, regardless of the concentration of these populations in the county.

COMMENTOR 0010: Vivian Perez, Coordinator,
Clean Air Initiative

Comment 0010-001

There are three issues of primary importance that should be addressed in the EIS:

1) Inappropriate application of the Prevention of Significant Deterioration (PSD) increment analysis and Significant Impact Levels (SIL) used by DOE to justify a claim of no significant air quality impact as a result of the projects.

Response 0010-001

Regarding the use of SLs as a benchmark of air quality impacts, please the response to Key Issue 2.

Comment 0010-002

There are three issues of primary importance that should be addressed in the EIS:

2) evidence given under oath by the defendants showing there is no reduction in total dissolved solids across the power plant wastewater treatment plants.

Response 0010-002

Regarding the removal of the TDS load by the wastewater treatment plants at the power plants, please see the response to Key Issue 14.

Comment 0010-003

There are three issues of primary importance that should be addressed in the EIS:...

3) modifying the existing wet cooling system at each plant to a parallel wet-dry cooling system to reduce water use by at least 90 percent while resulting in no efficiency penalty on hot days.

Response 0010-003

Regarding retrofitting the power plants with a wet-dry cooling system, please see the response to Key Issue 6.

Comment 0010-004

The members of the Clean Air Initiative are asking the DOE to revisit the EIS and not take it lightly. The greatest concern the CAI has is the adverse impact these power plants have on the air quality and health of residents in Mexicali and Imperial County. Power plants are a major source of air pollution impacting the border region. Just last year alone, almost 4,000 hospital visits were from children with asthma in Imperial County. This does not include adults or other pulmonary diseases nor does it include the alarming increase of pulmonary diseases in Mexicali.

Response 0010-004

The EIS analyzes the impacts of power plant operations on air quality and human health in Imperial County in Sections 4.3 and 4.11, respectively. An estimation of an additional two to three asthma hospitalizations in Imperial County based on a maximum PM₁₀ increment from the power plants has been added to Section 4.4.4.2. Please also see the response to Key Issue 13.

**COMMENTOR 0011: Lucy Hernandez, Open Airways and Clean Air Coordinator
American Lung Association**

Comment 0011-001

Because unhealthful air pollution already exists, the American Lung Association of San Diego & Imperial Counties would like to point out that the power plants are a major source of air

pollution impacting the border region. Therefore, the following issues should be addressed in the Environmental Impact Statement (EIS):

1) inappropriate application of the Prevention of Significant Deterioration increment analysis and Significant Impact Levels used by DOE to justify a claim of no significant air quality impact as a result of the project.

Response 0011-001

Regarding the use of SLs in the EIS, please see the response to Key Issue 2.

Comment 0011-002

Because unhealthful air pollution already exists, the American Lung Association of San Diego & Imperial Counties would like to point out that the power plants are a major source of air pollution impacting the border region. Therefore, the following issues should be addressed in the Environmental Impact Statement (EIS):...

2) evidence given under oath by the defendants showing there is no reduction in total dissolved solids across the power plant wastewater treatment plants...

Response 0011-002

Regarding the removal of the TDS load by the wastewater treatment plants at the power plants, please see the response to Key Issue 14.

Comment 0011-003

Because unhealthful air pollution already exists, the American Lung Association of San Diego & Imperial Counties would like to point out that the power plants are a major source of air pollution impacting the border region. Therefore, the following issues should be addressed in the Environmental Impact Statement (EIS): ...

3) modifying the existing wet cooling system at each plant to a parallel wet-dry cooling system to reduce water use by at least 90 percent while resulting in no efficiency penalty on hot days.

Response 0011-003

Regarding retrofitting with a wet-dry cooling system, please see the response to Key Issue 6.

Comment 0011-004

It is very important that the best available air pollution controls be required on these power plants and that air monitoring be done regularly to determine if emissions from the plants are meeting air quality requirements. Further, because the plants will be the source for transmission of power,

any accurate environmental assessment of the environmental or health impacts must include an analysis from the plants themselves, in combination with the transmission of power process.

Response 0011-004

The impacts in Imperial County of operating the power plants in combination with the transmission lines are analyzed in the EIS. Regarding emission controls, the export turbines plants in Mexico are currently equipped with controls comparable to what would be required in the United States, with the exception of the lack of an oxidation catalyst on Interger's Energía de Baja California (EBC) turbine. Plant emissions are monitored, as required, under the appropriate Mexico operating permits.

COMMENTOR 0012: Bonnie Garcia, 80th Assembly District, California

Comment 0012-001

The residents of the Imperial Valley and Mexicali are separated by nothing more than a political line in the sand and sometimes a metal fence, yet they share much more, including a common history, culture, and environment. It is the environment, however, that often draws the most attention, with water, air, and energy issues being discussed in many different circles and at all levels of government. It is this combination that brings us here today.

The Department of Energy hearings being held in El Centro and Calexico are the result of a legal action. A federal court determined the government overstepped its bounds in allowing construction of transmission lines through Imperial County without following the proper procedures. These transmission lines provide the state with power from American-owned plants in Baja California.

Absent from the process for permitting the construction of these lines was the voice of the local community.

Now that we have been provided the opportunity, I encourage residents, representatives of local governments and private industry in Imperial County to voice their opinions about this issue. As a member of the Assembly Select Committee on Air and Water Quality, I hold a special interest in ensuring the voice of residents in this county, where the hospitalization rate for children with asthma is more than twice the state average, is heard.

With its tremendous economic and population growth, California has flirted with an energy crisis for several years. Despite efforts to develop green and renewable energy sources within the state, we continue to have a demand that exceeds supply, forcing us to purchase power from outside our borders. While this is not the desired solution to our sustainability, it is necessary to keep California functioning in the coming years.

Merely recognizing the situation in which we find ourselves does not permit us to compromise the health of our residents and neighbors. Private industry is constantly asked to be a responsible citizen, government must do the same as a steward of the people's trust.

Response 0012-001

As stated in Sections S.1.1 and 1.1.1, DOE and BLM chose to prepare a full EIS (this document), in part, to increase opportunities for public participation in the NEPA process.

**COMMENTOR 0013: Kimberly Nicol, Staff Environmental Scientist
California Department of Fish and Game**

Comment 0013-001

The project has the potential to impact the western burrowing owl (*Athene cunicularia*), a California Species of Special Concern. The Department recommends that focused burrowing owl surveys be conducted on the project site to determine how many occupied owl burrows will be impacted. Any burrows that cannot be avoided should be mitigated at a 2:1 ratio with artificial burrows located in an adjacent protected area that provides a minimum 6.5 acres per pair or solitary owl.

Response 0013-001

The project applicants have agreed to mitigate owl burrows impacted during construction of the proposed transmission lines.

Comment 0013-002

In addition, the project area is located within flat-tailed horned lizard (*Phrynosoma mcallii*) habitat and the project has the potential to impact flat-tailed horned lizards, a California Species of Special Concern. The Department recommends that the project proponents mitigate for impacts as described starting on page 58 in the "Flat-Tailed Horned Lizard Rangewide Management Strategy, 2003 revision" (enclosed).

Response 0013-002

Mitigation measures for the flat-tailed horned lizard were conducted as presented in Section 2.2.1.4.1. These measures are fully consistent with the mitigation measures identified in the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003).

Comment 0013-003

The Department opposes the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether intermittent or perennial, must be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations:

a. The Department has direct authority under Fish and Game code § 1600 et seq. In regard to any proposed activity which would divert, obstruct or affect the natural flow or change the bed, channel, or bank of any river, stream, or lake.

b. A discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts must be included.

c. The Department is in the process of complying with a writ of mandate issued by the Superior Court of California (Mendocino Environmental Center vs. California Department of Fish and Game, Respondents, Bruce Choder, River Rat Salvage, et. al. Real Parties) The writ of mandate states:

“A writ of mandate shall issue ordering the California Department of Fish and Game on or before May 1, 1999, to prepare and implement a program or process that will incorporate a CEQA review into the Fish and Game Section 1603 process. The writ of mandate shall further order the California Department of Fish and Game to cease and desist entering into Section 1603 agreements after May 1, 1999, unless such agreements have been subject to a CEQA review.”

The writ of mandate clearly spells out what the Department's responsibilities are under CEQA with respect to all SAA's. In this regard, the Department is emphasizing in comment letters on projects that impacts to lakes or streambeds, alternatives and mitigation measures must be addressed in CEQA-certified documents prior to submittal of an application of a SAA. Any information which is supplied to the Department after the CEQA process is complete will not have been subject to the public review requirements of CEQA. In this instance the Department has three choices 1) refuse to issue the SAA, 2) not file the Notification because CEQA has not been complied with and return the package to the lead agency for further CEQA action, or 3) become the lead agency.

In order for the Department to process a SAA agreement, the CEQA-certified documents must include an analysis of the impacts of the proposed project on the lake or streambed, an analysis of the biological resources present on the site, copies of biological studies conducted on the site, biological survey methodology, and a discussion of any alternative measures, avoidance measures, mitigation measures which will reduce the impacts of the proposed development to a level of insignificance.

Response 0013-003

All the appropriate reviews and approvals for the transmission lines have been obtained by the projected applicants.

**COMMENTOR 0014: Mario H. Orso, Chief, Development Review Board
California Department of Transportation**

Comment 0014-001

Although the segment of SR-98 being crossed is not a designated state scenic highway, and the project did receive a low sensitivity rating (Visual Resource Inventory Class III), a degree of visual clutter would occur. Mitigation should be considered for the traveling public, such as reduction of shiny reflective surfaces on power poles or towers and/or surface treatments which help to blend these features with desert background colors.

Response 0014-001

The text in Section 4.8.4 of the EIS has been changed to include these measures.

Comment 0014-002

Any activity that may involve access, storage, staging, or other activities occurring within the SR-98 Right of Way (R/W) will require an encroachment permit. These specific activities and all related impacts should be discussed and addressed within the project's environmental document. The developer is responsible for quantifying the environmental impacts of the improvements (project level analysis) and completing all appropriate mitigation measures for the impacts. The indirect effects of any mitigation within department R/W must also be addressed. The developer will be responsible for procuring any necessary permits or approvals from regulatory or resource agencies for improvements. Additional information regarding encroachment permits may be obtained by contacting the Department's Permits Office at (619) 688-6158. Early coordination is strongly advised for all encroachment permits.

Response 0014-002

All appropriate licenses and permits required for the projects had been obtained by the applicants.

**COMMENTOR 0015: Crystal Crawford, Chair, Borders Committee
San Diego Association of Governments**

Comment 0015-001

We have read the health impact assessment and were concerned to discover that the area of influence considered in the analysis did not appear to include the populations of Mexico. As a binational group encouraging a binational approach to border energy issues, we would suggest that the analysis be based on an air basin approach without regard to political boundaries.

The Mexican members of our group have assured us that health impact assessments do exist in this case, therefore we urge you to be proactive and incorporate these studies into your analysis. We would suggest that the pursuit of a transboundary environmental assessment protocol in the U.S.–Mexico border region for major energy projects, such as this, would be more beneficial to the health and wellbeing of our entire border community.

Response 0015-001

Regarding analysis of impacts to Mexico, please see the response to Key Issue 1.

**COMMENTOR 0016: Octavio M.C. Simões, Vice President, Planning and Analysis
Semptra Energy Resources**

Comment 0016-001

SER generally concurs with the analysis and findings contained in the DEIS and supports implementation of the proposed action and preferred alternative -- granting the Department of Energy (“DOE”) Presidential Permit and Bureau of Land Management (“BLM”) right-of-way to T-US. The DEIS complies with the requirements of the National Environmental Protection Act (“NEPA”) and demonstrates that the environmental impacts in the United States associated with construction of the transmission line is *de minimus*.

Response 0016-001

Comment noted.

Comment 0016-002

The DEIS also comprehensively evaluates the indirect and cumulative impacts on the United States² associated with TDM and InterGen La Rosita Power Complex operations in Mexico, and demonstrates that these impacts are likewise relatively minimal.

²The DEIS properly omits evaluation of impacts in Mexico. These impacts have already been evaluated by the permitting authorities in Mexico. Due to Mexican involvement in the environmental analysis and permitting of the power plants in Mexico consistent with Mexican law, neither NEPA nor Executive Order 12114 requires a duplicative assessment of environmental impacts within Mexico in the EIS for the proposed action.

Response 0016-002

The EIS has been revised to include information about the environmental impact assessment conducted by Mexico authorities. Please also see the response to Key Issue 1.

Comment 0016-003**Permanent Removal of TDS**

The DEIS includes a description of the proposed action including, among other things, an assessment of the amount of total dissolved solids (“TDS”) removed by the TDM wastewater treatment plant, which is described and discussed in the DEIS at 2-33 to 2-34 and 4-19 to 4-20.³ Additional detail regarding the TDS removal process is attached as Exhibit A to these comments. As shown in Exhibit A and in the DEIS, water balance calculations performed on the water treatment process demonstrate the removal of 3.7 million pounds per year of TDS when based on a 100% operations scenario. The DEIS assumes a 100% operations scenario because this generally results in a very conservative, worst case disclosure of potential impacts (in particular, with respect to air quality emissions and water flow reductions).⁴

However, with respect to TDS removal, it is also important to understand the expected TDS removal when analyzed based on an expected operations scenario. As explained in Exhibit A, with expected operations at TDM, 2.7 million pounds per year of TDS will be removed. Testing during actual operating experience verifies the removal of TDS and, in fact, demonstrates that actual removals are somewhat greater than what was conservatively calculated under the expected operations scenario in Exhibit A. Although the number of pounds of TDS actually removed by the water treatment plant will vary depending on the level of power plant operations, it is a substantial amount of TDS removal in any case. Along with the significant amount of dissolved organics, ammonia, phosphorous, and agricultural and industrial chemicals removed, operation of the wastewater treatment plant at the TDM project will have an overall beneficial impact on water quality in the New River and in the Salton Sea.

³On Page 4-19, Section 4.2.4.1.2, there appears to be an error in the conversion of pounds to kilograms (“29 million and 14 million pounds” are incorrectly converted to “36 and 43 million kg”, when the text should read “13 and 6.5 million kg”).

⁴Of course, no power plant can ever operate 100% of the time 365 days a year in action operations due to down time needed for scheduled maintenance, forced outages, and varying electricity demands.

Response 0016-003

Text has been added to Section 4.2.4.1.2 of the EIS to reflect that TDS removal would be about 25% less under expected operations than estimated for 100% capacity. Please see also the response to Key Issue 18. Regarding the removal of the TDS load by the wastewater treatment plants at the power plants, please see the response to Key Issue 14.

Comment 0016-004**Double Circuit Transmission Line**

The DEIS (pages S-6, 1-6, and 2-15) also indicates that the transmission line for TDM is a double circuit, each with the capacity to carry the total output of the plant. The rationale for the double circuit is simply good engineering practices --- to enhance reliability of operation. Having two circuits capable of carrying the full output of the plant is typical of power plants that only have one link to the delivery point over long distances, nine miles in this case. This allows for maintenance of each circuit (insulators, conductors, etc.) without interruption in deliveries of electricity. In addition, each circuit terminates at different points at both the plant switchyard and the Imperial Valley substation. This allows for maintenance of yard equipment such as circuit breakers and switches, again without interruption of service to the grid. This feature is a benefit that can be achieved at very low cost as the cost of the added circuit is a very small component of the total cost of the transmission line. As explained in SER's letter to the Department of Energy dated April 7, 2004, SER is not currently developing a second power plant in the vicinity of the existing TDM facility.

Response 0016-004

The cumulative impacts analysis in the EIS reflects no expansion of the TDM complex in the foreseeable future. Please also see the response to Key Issue 16.

Comment 0016-005

On Page 4-19, Section 4.2.4.1.2, there appears to be an error in the conversion of pounds to kilograms ("29 million and 14 million pounds" are incorrectly converted to "36 and 43 million kg", when the text should read "13 and 6.5 million kg").

Response 0016-005

The text has been corrected per the comment.

Comment 0016-006**Alternatives and Mitigation Measures**

The DEIS also evaluates a range of alternatives to the proposed action including an alternative that would grant the Presidential Permit only if the transmission lines were connected to a power plant that employed alternative cooling technologies such as dry cooling or wet-dry cooling.⁵ The reason for using an alternative technology would be to reduce the amount of water necessary for cooling. For numerous reasons, however, these cooling alternatives would neither be feasible at TDM nor achieve a sufficient amount of water use reduction to justify the high cost and inefficiencies involved in retrofitting the plant to utilize such technology. In addition, the economic impacts to Mexico from loss revenue associated with water sales would also be significant.

First, dry cooling or wet-dry cooling technology is normally only used when sufficient water is not available for wet cooling and the economics of the project can withstand the increased cost and loss of performance caused by use of the dry cooling technologies. The use of dry-cooling alone or in parallel with wet-cooling for any portion of the operation at TDM means less electricity will be produced with the steam produced and thus more fuel per unit of electricity produced will be consumed, as explained in technical detail in Exhibit B hereto. How much less electricity will be produced depends on the ratio of dry cooling to wet cooling selected for the plant design.

The detrimental performance effects of dry cooling would be especially pronounced at TDM because the daily mean maximum temperature exceeds 90°F for seven months of the year and 80°F for nine months of the year. These time periods coincide with the months of high electricity demand when the plant would be expected to operate the most hours and at its highest output level. Because of these harsh climate conditions, wet cooling is necessary for a majority of the year in order to maintain output and minimize impact on plant efficiency. In the current wet-cooled-only configuration, it is estimated that TDM uses approximately 70% of its annual amount of water during the warmer months.⁶ This means that most of this water would still be consumed in a wet-dry system and the reductions in water consumption from a wet-dry retrofit would be small and come at a very large cost, as discussed in more detail below.

Second, because the TDM plant is already completed, it would be extremely costly to retrofit the plant with wet-dry cooling technology. A description of the components of a retrofit similar to that designed for another SER facility under development in an arid region of the United States ('Project Alpha'), which would be capable of providing dry cooling for temperatures up to the 75°F to 80°F range, and preliminary estimate of its cost is included in Exhibit B. The extensive nature of the modifications and amount of new equipment would cost over \$75 million. In addition, there would be significant costs associated with shutting down the facility for the 4-5 months necessary to complete the construction related to the retrofit.

If the wet-dry cooling system were required to provide dry-cooling up to ambient temperatures of 90°F (which could not be accomplished by the Project Alpha design), and wet cooling for temperatures above that, the size of the air-cooled condenser, according to equipment manufacturer information, would occupy an area of 6.5 acres, utilize 144 fans, consume 20 MW of power, and it would cost \$80 million plus \$40 million to install. See Exhibit B. These costs do not include the cost of the other extensive required modifications, which would likely add at least

another \$50 million based on the Project Alpha design estimate, or lost opportunity costs. There would also be significant air quality and noise issues associated with such an operation.

Clearly, the capital costs for implementing any type of wet-dry cooling retrofit at TDM would be cost-prohibitive, in particular when there is sufficient water available to allow use of a much more efficient wet cooling system. In addition, water use impacts are minimal as documented in the DEIS.

Third, use of dry or wet-dry cooling at TDM would be inconsistent with the operation of the biological treatment component of the wastewater treatment plant, which must be operated at constant levels of flow to keep the microorganisms performing at optimal levels. Additional capital cost was incurred for the water treatment plant at TDM, however plant performance is not sacrificed. Operating this water treatment plant for long stretches of time while not using the water for cooling adds to the economic infeasibility of retrofitting TDM with dry or wet-dry cooling technology.

In any event, because the TDM power plant is located in Mexico, not in the United States, neither DOE nor BLM has any regulatory jurisdiction over the TDM power plant. The TDM plant is being operated in compliance with its Mexican-issued operating permit.⁷ Adoption of any measure that purports to require alteration of the facilities and/or operations of a legally permitted power plant in another country would constitute improper and undue interference with the affairs of another country and should be rejected.⁸ Thus, DOE and BLM should not include any additional conditions to the already existing permits.

⁵The DEIS also evaluates equipping the power plants with selective catalytic reduction (“SCR”) technology and use of oxidizing catalysts on all gas turbines. The TDM plant was designed and built, and is operating with both SCR and oxidizing catalytic controls for NO_x (2.5 ppm) and CO (4 ppm). The plant’s Mexican environmental permits reflect this condition.

⁶The owners of TDM also own and operate a fully dry cooled power plant in Nevada, the El Dorado generating station. El Dorado is a smaller power plant because it does not have the amount of peak load duct firing (i.e. increased steam production and steam condensing cooling load) that TDM has. The annual consumption of water at El Dorado from cycle demands (no steam condensing) is 215 acre-feet. Using the same proportion, TDM cycle demands are estimated at 300 acre-feet alone. The estimated water consumption of TDM with a wet cooled system under normal operation is 2,500 acre-feet. per year, which means that 2,200 acre-feet are used in wet cooling for steam condensing.

⁷Although physically located in Mexico, the TDM plant is within the California Independent System Operator (“ISO”) control area. This fact, however, does not make TDM any less of a Mexican facility and certainly does not turn it into a California facility. For example, other power plants located in Nevada are likewise included within the California ISO control area, however, those plants continue to be regulated under the laws of the jurisdiction (Nevada) in which the plant is physically located.

⁸The TDM plant was designed and built with state-of-the art emissions controls equivalent to those required in California and it is the cleanest gas-fired power plant in Mexico. With the DEIS properly discusses mitigation measures to assist in disclosing and understanding the potential environmental impacts of the proposed action, there is no legal requirement under NEPA to mitigate potential environmental impacts.

Response 0016-006

An analysis of the cost, space, design, feasibility, efficiency, noise, and time considerations associated with retrofitting a parallel wet-dry cooling system to the power plants has been added to Section 2.3.1 and is discussed in the response to Key Issue 6. Estimates of water use reductions achieved by wet-dry cooling over wet-only cooling have also been added to Section 2.3.1. The resultant impacts on water resources, including implications on operation of the water treatment units at the power plants and associated water quality impacts, are analyzed in Section 4.2.5. The wet-dry cooling option is estimated to result in a 2% increase in salinity of the New River at the border with no plants operating, compared with a 6% increase for the proposed action. This difference would only contribute minor benefits to the New River and the Salton Sea from the wet-dry cooling option. Regarding the conditioning of permits, please see the response to Key Issue 3.

Comment 0016-007**Air quality and Health Impacts**

With respect to the air quality analysis included in the DEIS, SER agrees with the approach used in the conformity analysis on DEIS pages 4-38 to 4-39. In particular, given the Supreme Court's recent decision in *U.S. Dept. of Transportation v. Public Citizen*, 124 S.Ct. 2204 (2004) and the lack of DOE or BLM regulatory authority over the power plants in Mexico, only emissions caused by construction and operation of the transmission lines should be considered in the conformity analysis. Moreover, even if the Imperial Valley were reclassified as a "serious" non-attainment area for PM₁₀⁹ resulting in an applicable exemption level of 70 tons/year, the proposed action with a maximum total of less than 12 tons of PM₁₀ emissions per year would still be exempt from any additional conformity review.

The DEIS uses EPA-established significance levels ("SLs") as thresholds or yardsticks to assist the decision maker in judging the significance of potential adverse impacts of power plant emissions. We understand from the DEIS that the SLs are not being applied to emissions from the power plants as part of any direct application of the Clean Air Act ("CAA") Prevention of Significant Deterioration or EPA regulatory requirements to the plants. Because the power plants are located in Mexico and permitted under Mexican law, the United States has no authority to apply the CAA to the power plants or to designate areas in Mexico as "attainment" or "non-attainment;" such designations simply do not apply to areas outside the United States. Accordingly, it would not be appropriate for the DOE to directly apply CAA requirements (such

⁹The Ninth Circuit Court of Appeals' order rejecting the claim that Imperial County's PM₁₀ non-attainment was caused by emissions coming from Mexico into the United States and ordering that the Imperial Valley be reclassified as a "serious" non-attainment area for PM₁₀ has evidently not yet occurred. See *Sierra Club v. U.S. Environmental Protection Agency*, 346F.3d955(2003), cert. denied 124 S.Ct. 2873 (June 21, 2004); <http://www.epa.gov/airprog/oar/oaqps/greenbk/pnca.html#3471>. Interestingly, the Court's finding with respect to the impacts of Mexican emissions on the Imperial Valley is consistent with the DEIS' finding (pages 4-52 to 4-54) that for much of the year (exceptions being June-August), the winds that transport air pollutants mainly blow from the United States into Mexico.

as the requirement for offsets under CAA section 173(c)) to the power plants or attempt to regulate the power plants under the CAA through the conditioning of the transmission line permits. However, SER agrees that the EPA SLs can serve as a useful gauge of the significance of particular emissions and agrees with the DEIS' conclusions that comparing the emissions in the United States caused by the power plants with the SLs demonstrates that such impacts would be minimal. This approach is also consistent with that utilized in the original Environmental Assessment prepared for the proposed action, which was upheld by the District Court. *See* DEIS Appendix A at A-25 to A-27, A-43 to A-44.

Response 0016-007

Please see the response to Key Issue 2.

Comment 0016-008

We also concur with the DEIS analysis with respect to secondary PM₁₀ formation from the power plant emissions. The DEIS correctly recognizes that an increase in the ammonia emission rate would not have a linear effect on the secondary ammonium nitrate concentration. The equilibrium relationship between ammonium nitrate formation and ammonia and nitric acid concentrations, illustrated on page 4-42 of the DEIS, is non-linear. In an ammonia-rich environment, increases in ammonium nitrate concentrations are less than proportional to increases in ammonia concentrations. In addition, as explained on pages 4-45 and 4-46, the analysis is extremely conservative because it assumes that the production of secondary ammonium nitrate from NO_x emissions in the Imperial Valley is as efficient as in the cooler, more humid San Joaquin Valley, which is obviously not the case.

Response 0016-008

Regarding the analysis of secondary PM₁₀ generation in the atmosphere from power plant primary emissions, please see the response to Key Issue 10.

Comment 0016-009

Finally, SER agrees with the DEIS conclusion that the proposed action's O₃ and PM₁₀ contributions would cause, at most, only a very minor increase in the asthma problem in Imperial Valley. Indeed, a quantitative analysis of the potential for increases in PM₁₀ to cause increased asthma problems confirms this conclusion in the DEIS. *See* Exhibit C. As shown by the quantitative, conservative over-estimation of the impact, less than a single additional case of asthma hospitalization would be caused by power plant emissions assuming the power plants operated at 100% capacity 365 days a year.

Response 0016-009

The estimate of less than one additional case of asthma hospitalization was for the population of Calexico only. Performing a similar calculation for the entire Imperial County population of 156,600 (2003 estimate [State of California 2004]) results in an

estimate of a maximum of two to three additional hospitalization cases per year attributable to power plant emissions. However, using the annual average PM₁₀ increase, as is appropriate for health impact estimates, rather than the 24-hour maximum, results in an estimate of less than one additional hospitalization per year. Please see the response to Comment 0008-001 and Key Issue 13.

COMMENTOR 0017: Sylvia A Waggoner, Division Engineer,
Environmental Management Div.
International Boundary and Water Commission U.S. and Mexico

Comment 0017-001

Proposed construction activities should not change historic surface runoff characteristics at the international border. This requirement is intended to ensure that development in one country will not cause damage to lands or resources in the other country. Engineering drawings and supporting calculations, which demonstrate the proposed activities and construction will not change historic surface runoff characteristics, must be provided for review and approval prior to beginning work. The proponent must properly maintain structures constructed along the international boundary and address any liability issues related to the proposed activities.

The USIBWC requires that final engineering drawings be submitted to the USIBWC for review and approval prior to beginning the proposed electrical transmission line and related facilities construction. These drawings must show the location of each component in relation to the international boundary and the boundary monuments. Plans for construction should be submitted to the USIBWC soon as possible. Project information including plans should also be submitted to the Mexican Section of the International Boundary and Water Commission in Ciudad Juarez, Chihuahua, Mexico by project proponents in Mexico. The proponent should verify that coordination with proper authorities in Mexico is complete prior to construction. The USIBWC may verify that proper coordination with Mexico is complete. Proposed projects in Mexico must be reviewed by the appropriate agencies in Mexico and be constructed in accordance with Mexican laws.

Response 0017-001

All the appropriate reviews and approvals for the transmission lines have been obtained by the project applicants.

Comment 0017-002

On page 5-9 of the DEIS the discussion of the Total Maximum Daily Load program the last sentence should state “discharging to the watershed within California.” Water quality criteria for discharges to the New River in Mexico are established by legislation in force in that country.

Response 0017-002

The text in Section 5.3.4, “Total Maximum Daily Load Program,” has been changed to state “discharging to the watershed within California.”

Comment 0017-003

On page 5-14 the DEIS indicates the primary purpose of the proposed projects is to transfer electrical energy from new natural gas-fired electric power generation plants to the power grids in southern California. The proposed power plant projects in Mexico will involve the construction and operation of wastewater treatment plants which discharge effluent for use in the facility cooling system. Those cooling systems discharge to drainages that flow to the New River in Mexico. The original Environmental Assessment (EA) considered transboundary impacts to air quality but did not consider transboundary impacts to water quality. The DEIS has defined the construction and operation of the related power plant projects and wastewater plants in Mexico as within the region of influence and as reasonably foreseeable actions. The USBWC concurs with this approach. Air quality impacts to the Salton Sea Air basin were evaluated. Impacts to water quality in the New River and Salton Sea were evaluated.

The prior EA discussed the cooperative efforts of the United States and Mexico through the International Boundary and Water Commission (IBWC), in Minute Nos. 261, 264 and 294 to address water quality concerns for the New River. The DEIS does include this discussion. Under Minute No. 264, Mexico has the obligation to ensure that flows in the New River meet established water quality standards at the international boundary. The proponent should evaluate the impact of the cooling system discharges on efforts by agencies in Mexico to comply with these New River water quality standards at the international boundary.

Response 0017-003

Regarding analysis of impacts in Mexico, please see the response to Key Issue 1.

COMMENTOR 0018: Eric J. Murdock, Counsel
Baja California Power, Inc.

Comment 0018-001

The DEIS defines the “no action” alternative as the denial of both of the transmission line permit applications, and states that “[u]nder the no action alternative, neither of the proposed transmission lines would be constructed and the environmental impacts associated with their construction and operation would not occur.” DEIS at 2-1. Accordingly, the power plant impacts associated with the no action alternative should be zero. However, the DEIS presents the impacts associated with the no action alternative as those resulting from the operation of the three turbines at the EAX plant. See DEIS, Sections 4.2.3 and 4.3.3 and Tables 4.2-1 and 4.3-1b. It appears that the DEIS takes this approach based on the fact that all three of the gas turbines at the EAX plant would operate even if the BCP transmission line permit were denied. DEIS at 2-1.

This fact does not justify singling out the EAX plant impacts as the no action scenario. There is no logical basis to treat the EAX plant any differently from any other existing power plant, industrial facility, or other source whose impacts comprise the baseline environmental conditions against which the project-related impacts are to be assessed. The impact from the EAX plant are more properly addressed as part of the cumulative impacts analysis along with the impacts from other existing and reasonably foreseeable sources.

The DEIS defines the proposed action as the issuance of Presidential permits for both of the transmission lines on the terms proposed by the applicants, and states that “[t]he impacts attributable to the preferred alternative would be those associated with the operation of the entire TDM plant, the EBC unit, and the EAX export unit, and the construction and operation of the proposed transmission lines.” DEIS at 2-2. As the DEIS acknowledges, and as the district court expressly found, the EAX export turbine (as well as the other two EAX turbines) would have been built and would operate even if the BCP transmission line were never constructed or permitted. The DEIS nonetheless includes the EAX export turbine in its analysis of impacts attributable to the proposed action simply because the BCP line, if it is available, would be used to transmit at least a portion of the output from the EAX export turbine to the U.S. See id. This is not a valid basis for attributing the impacts from the operation of the EAX export turbine to the BCP transmission line. Under NEPA, an effect may be attributed to an action only if it is “caused by” the action. See 40 CFR § 1508(a), (b) (definitions of “direct” and “indirect” effects). The EAX export unit was not “caused by” the BCP line. The export turbine was part of the EAX plant design prior to any plans to build the BCP transmission line and unquestionably would be operated even in the absence of the BCP line. By including the EAX export unit in its analysis of impacts attributable to the BCP transmission line, the DEIS overstates the true impacts by a factor of two.²

This is not to say that the DEIS should not consider the impacts from all of the units at the LRPC. However, it is not appropriate, even for the sake of conservatism, to present the impacts of the proposed BCP line as the combined impacts from the EBC plant and the EAX export unit. This approach is misleading in at least two respects. First, it double counts the operations of the EAX export unit by including that unit under both the no action alternative and the proposed action alternative. More importantly, it largely fails to consider any scenario that is properly focused on impacts from just the proposed action – *i.e.* the operation of the EBC plant alone or in combination with the operation of the TDM plant. None of the summary tables in Sections 4.2 and 4.3 present data under either of these two scenarios — even though these are the scenarios that properly reflect the impacts from the proposed action. The final EIS should clearly distinguish project-related impacts from impacts that form part of the baseline for the cumulative impacts analysis so the public and the decision-makers at DOE and BLM can understand the true environmental consequences of the permitting action under consideration. In particular, the summary tables in Sections 4.2 and 4.3 (and the corresponding text) should be revised to include

²The recent decision of the U.S. Supreme Court in Department of Transportation v. Public Citizen 541 U.S., Slip. Op. at 12-13 (June 7, 2004), makes it clear that there must be a “reasonably close causal relation” between an agency action and an environmental effect, not just a “but for” causal relationship, before that effect is properly attributable to the action for purposes of NEPA analysis.

separate columns (and discussion) to present the relevant data for the EBC plant operating alone and the EBC plant operating together with the TDM plant.³

³Attached as Appendix B to these comments are revised versions of the pertinent tables from Section 4.2 of the DEIS showing water quality data for these two “proposed action” scenarios. Because we did not have access to the data underlying the air modeling results presented in the DEIS, we were not in a position to prepare similar tables breaking out the modeled impacts associated with emissions from the EBC and TDM plants. Nonetheless, the final EIS should present the modeling results for the EBC and TDM plants operating individually and together.

Response 0018-001

Regarding the definition of the no action alternative and the inclusion of the entire Energiá Azteca X, S. de R.L. de C.V. (EAX) unit, please see the response to Key Issue 4. Regarding the inclusion of the EAX export turbine in the proposed action, also please see the response to Key Issue 4. With respect to the statement that the proposed action is “the operation of the EBC plant alone or in combination with the TDM plant,” it should be noted that the proposed action is the construction of one or both transmission lines, not the operation of power plants. It is largely this distinction that results in the EAX export turbine being included in both the no action and proposed action alternatives. Summary tables in Sections 4.2 and 4.3 have not been revised as suggested in the comment. Regarding the impacts of the no action and action alternatives in general, please see the response to Key Issue 18 on the conservativeness of the analyses.

Comment 0018-002

The DEIS contains numerous estimates and projections regarding impacts to the environment from the proposed actions - in particular with respect to water use and air emissions from the new power plants in Mexico to which the transmission lines are connected. In nearly every instance, these figures are based on conservative assumptions. In some cases, the approach taken in the DEIS is overly conservative - to the point of misleading the reader - and more realistic assumptions should be used in the final EIS. More generally, while the use of conservative assumptions is not necessarily inappropriate for many of the specific analyses of environmental impacts, the final EIS should make sure that readers of the document understand the extent of the conservatism built into that analysis, and point out that this approach likely overstates the actual environmental impacts of the transmission line projects.

Response 0018-002

Regarding conservatism in the analyses in the EIS, please see the response to Key Issue 18. The analyses in the EIS are generally conservative so the reader and decision maker can be assured that actual impacts would be very unlikely to exceed those analyzed.

Comment 0018-003

Capacity factor. The power plant impacts described in the DEIS assume that the plants will operate at 100% capacity factor - i.e., 24 hours a day, 7 days a week. In fact, no power plant operates at 100% capacity factor over the course of an entire year. At a minimum, periods of downtime must be scheduled for regular maintenance. In addition, there may be unexpected outages, and there may be periods where demand is not sufficient to call the unit into operation. For the LRPC, it is expected that the actual capacity factor will be on the order of 60%. As a result, all of the figures reported in the DEIS for the LRPC regarding total annual air emissions and water consumption are overstated across the board by approximately 40%.⁴

⁴By the same token, the beneficial effects of wastewater treatment at the LRPC are likely somewhat overstated in the DEIS because they likewise are based on the assumption of water use – and thus water treatment – at a capacity factor of 100%. To the extent that the plants actually run less than 100% of the time, less water may be treated, and some of the secondary and tertiary treatment processes may be by-passed. However, although it may be possible to reduce the flow to the biological treatment plant somewhat during periods of reduced plant demand for water, the treatment plant must maintain a minimum flow at all times in order to sustain the biological processes and to be in a position to supply sufficient quantities [of] treated water on short notice when the turbines are called into operation.

Response 0018-003

Please see the response to Key Issue 18.

Comment 0018-004

Displacement Effects. The La Rosita and TDM plants are clean facilities with state of the art emissions control. The air emissions from these facilities are lower than 70% of all power generating facilities serving the California grid (including most of the existing generating facilities located in Imperial County). When these plants are in operation they very likely are displacing generating facilities whose emissions per mega-watt-hour produced are significantly higher. The DEIS does not take into account these relative emission reductions resulting from the operation of the La Rosita and TDM plants. Although it [is] difficult to identify the specific facilities displaced by the Mexico plants, or to quantify the environmental impacts avoided as a result of such displacement, conceptually such avoided impacts offset at least in part the impacts from the operation of the Mexican power plants.

Response 0018-004

Because the power plants are analyzed as effects of the action (i.e., construction of transmission lines) rather than the action itself, alternatives regarding power plants and the generation of power are confined to a set of reasonable options for the existing plants.

Comment 0018-005

Direct Particulate Emissions. The air quality analysis in the DEIS is based on an emission rate for fine particulates (“PM₁₀”) of 52.3 pounds per hour for each turbine at the LRPC. See DEIS Appendix G-1. This emission rate was reflects the guarantees provided by the turbine vendor. Vendor guarantees for PM₁₀ from gas-fired turbines are generally much higher than the actual emission rates to account for the limitations of the compliance testing methodologies - which often produce significant variability in test results that is not representative of actual emissions. See Memorandum from Gary Rubenstein to Sean Kiernan, July 29, 2004 (“Rubenstein Memo”) at 2.⁵ Studies of test data from gas turbines comparable to those at the LRPC demonstrate that actual PM₁₀ emissions from these units are on the order of 5 lbs/hr or less, with very little variability. *Id.* at 4-5. The actual annual emissions of PM₁₀ from the EBC plant therefore are likely closer to 22 tons/yr (even assuming a capacity factor of 100%) rather than the 238 tons/yr figure presented in the DEIS. As a result, the air quality modeling results reported in the DEIS significantly overstate the actual effects of plant emissions on ambient concentrations of PM₁₀.

⁵A copy of the Rubenstein Memo is attached to these comments as Appendix C.

Response 0018-005

Conservative, maximum theoretical possible assumptions were chosen and were used throughout the EIS to assess or quantify impacts. In the case of emission rate data from power plants, highest level vendor guarantee data were drawn upon, not actual measured emission rates (which, as illustrated in this comment, could be up to an order of magnitude less). Conservative assumptions were also made that power plant units operated at maximum output and for 24 hours a day, 365 days a year. DOE and BLM acknowledge that these assumptions do not reflect the real world of power scheduling demands and maintenance needs. Thus, although impact levels that were computed could represent considerable overestimates, they can be relied upon to represent upper level maximal bounds for decision makers. Please also see the response to Key Issue 18.

Comment 0018-006

Formation of Secondary Particulates. To estimate the impacts from the formation of secondary particulates attributable to emissions from the power plants, the DEIS uses a conversion factor of 0.6 grams of NH₄NO₃ for each gram of nitrogen oxides. DEIS at 4-44. The 0.6 value is taken from a study by Stockwell of conditions in the San Joaquin Valley where humidity - a critical factor in the formation of secondary particulates is much higher than in the Imperial Valley. As a result, this conversion factor is overly conservative, and results in what the DEIS itself characterizes as a “gross overestimate”. The DEIS acknowledges that a study specific to the Imperial Valley area (Chow and Watson) concludes that the ambient concentration of secondary particulates attributable to all sources is no more than 2 to 3 µg m³ for 24-hour measurements. Emissions from the power plants represent only a small fraction, less than one percent, of total NO_x emissions in the Imperial Valley area. A simple extrapolation would indicate that the incremental increase in PM₁₀ concentrations due to secondary formation from the plant emissions is more than 30 times less than the 1.0 µg m³ figure yielded by the air modeling

performed for the DEIS. Although the DEIS correctly concludes that the secondary formation of particulates from the power plants is “m³ de minimis,” the use of the Stockwell .conversion factor and the resulting reference to a 1.0 µg impact is highly misleading. It should be deleted from the final EIS and replaced with a more realistic analysis, based on the Chow and Watson study, to explain the conclusion that the secondary particulates attributable to emissions from the power plants have virtually no impact on ambient PM₁₀ concentrations.

Response 0018-006

Considerable effort was expended in the analysis described in Section 4.3.4.4.2 of the EIS to reach an objective conclusion on the impacts of secondary particulates (i.e., ammonium nitrate [NH₄NO₃] formation) attributable to power plant emissions. Please see the response to Key Issue 10. The actual measurement by Chow and Watson (1995) of NH₄NO₃ in the Mexicali area of several µg/m³ indicated that the contribution by formation from background NH₃ and power plant emissions of NO_x was on the order of <<1 µg/m³ and provided corroborating evidence that the separate theoretical calculations described in Section 4.3.4.4.2 — using a known highly conservative conversion factor from Stockwell et al. (2000) — also indicated likewise.

Comment 0018-007

Particulate Emissions from Exposed Salton Sea Lakebed. The DEIS notes that the reduce volume in the Salton Sea resulting from the power plant operations will have the effect of exposing a thin strip of land adjacent to the shoreline at the Salton Sea. The DEIS attempts to estimate the potential fugitive emissions of particulates caused by wind erosion of this exposed strip of lakebed by extrapolating from a study of fugitive dust emissions from the bed of Owens Lake, which has been completely dry since the late 1920s. See DEIS at 4-56. The DEIS concludes this analysis by stating that fugitive emissions of particulates from the exposed Salton Sea shoreline “could be estimated to be <<100 tons/yr (<<91 t/yr) as a result of the proposed action.” Id. at 4-57. This statement gives the impression of a much larger potential impact than is supported by the analysis that precedes it. There is no basis for using a figure as large as 100 tons/yr as the frame of reference for describing the magnitude of the potential fugitive particulate emissions from the Salton Sea shoreline. Two paragraphs earlier, the DEIS explains that a straight extrapolation from the Owens Lake study would yield an estimate of only 50 tons/yr. Moreover, the DEIS goes on to note that this 50 ton per year figure itself likely represents an overestimate because the amount of dust produced per acre from an expansive and long-dry lakebed would be significantly higher than the amount of dust produced from a seven foot wide strip of land adjacent to a large water body. A more appropriate conclusion to draw from the analysis in the DEIS is that fugitive emissions of particulates from the exposed edge of the Salton Sea are likely to be significantly less than 50 tons/yr.

Response 0018-007

A revised expected value of less than 10 tons/yr (9 t/yr) of additional lakebed emissions has been provided in Section 4.3.4.4.4 of the EIS. This value is based on a further

examination of the differences in the emissive characteristics between Owens Lake and the Salton Sea shoreline area lakebed as described in the added text. This analysis draws upon differences in lakebed characteristics described in the EIS/environmental impact report (EIR) on the Imperial Irrigation District/San Diego County Water Authority Water Conservation and Transfer Project (IID 2002). Please see also the response to Comment 0019-008 and Key Issue 17.

Comment 0018-008

The DEIS not only overstates the magnitude of the air emissions and water consumption resulting from the power plant operations attributable to the transmission line projects, but in several instances (as noted below) it also overstates the environmental significance of these power plant impacts. The final EIS should be more careful in stating its conclusions to ensure that they are properly supported by the underlying data and analysis and are stated consistently throughout the document.

Response 0018-008

Please see the responses to Comments 0018-009 through 0018-012.

Comment 0018-009

“Adverse” Air Impacts. In the discussion of “unavoidable adverse impacts,” the DEIS states that it is “likely” that ozone “would be secondarily produced due to the operation of the two plants.” DEIS at 6-2. This statement is not consistent with the analysis of air quality impacts earlier in the DEIS which indicates that the modeling of NO_x emissions from the power plants showed that the operation of the power plant is likely to result in a slight reduction in ozone concentrations. See DEIS at 4-51. Although this conclusion may seem surprising, it appears to be based on a sound scientific methodology and should be presented consistently throughout the document.

Response 0018-009

In Section 6.4, the text “While it is likely that O₃ would be secondarily produced due to the operation of the two plants, the amount expected to reach the maximum U.S. receptor point is so small it would be indistinguishable from ambient background levels” has been changed to: “The amount of any O₃ that could be produced due to the operation of the two plants is so small it would be indistinguishable from ambient background levels.”

Comment 0018-010

MCLs as Water Quality Benchmarks. The DEIS uses EPA’s published maximum contaminant levels (“MCLs”) as a benchmark to evaluate the quality of the New River with respect to several constituents. DEIS at 3-15, 3-22. MCLs are standards for drinking water. The New River is not a viable source of drinking water due to adverse water quality conditions entirely unrelated to operation of the power plants. The final EIS should make clear that the use of MCLs to evaluate New River Water quality is therefore, highly conservative.

Response 0018-010

The text in Section 3.2.1.1.2 has been corrected to state that the use of maximum contaminant levels (MCLs) for water in the New River is very conservative in as much as this water is not used as a supply for drinking water.

Comment 0018-011

Salton Sea Salinity Impacts. The DEIS states that “[g]iven the uncertainties related to the restoration activities at the Salton Sea, the long-term magnitude and significance of these impacts is difficult to quantify.” In particular, the DEIS does not account for the effects of the Salton Sea Restoration Project in its analysis of cumulative impacts because the details of the project are “still under development.” DEIS at 3-18. It appears, however, that the restoration activities may not be as uncertain as the DEIS indicates. According to the Environmental Assessment for the Mexicali II Wastewater Treatment Plant (one of the documents referenced in the DEIS), in April 2003, the Salton Sea Authority Board of Directors endorsed moving forward with the so-called “North Lake” plan to improve the Salton Sea. The plan involves “creating and managing an ocean-like lake in the North Basin of the Sea by constructing a dam mid-way across the current Sea. Extensive shallow water habitat would be created using stepped ponds in the South of the Sea. The plan also includes desalinization of Imperial Valley rivers.” Even if the Restoration Project’s potential improvements to the Salton Sea cannot currently be quantified, the final EIS at least should point out that the Restoration Project was tasked to consider a reduction in inflows to the Sea of 540,000 acre-ft/yr. The reduction in inflow to the Sea due to operations of the power plants is a small fraction of this amount. Thus, if the Restoration Project succeeds in achieving its objectives, on a cumulative basis the impacts of the proposed action on the Salton Sea would be effectively eliminated.

Response 0018-011

Information has been added to the EIS that points out that the Salton Sea Restoration Project was tasked to consider a reduction in inflows to the Sea of 540,000 ac-ft/yr (21.1 m³/s). The combined loss of water to the Sea from plant operations, 10,667 ac-ft/yr (0.42 m³/s), represents a very small fraction of this quantity of water (about 2%), and its impacts to the system would be correspondingly small. The published details of the North Lake Plan are provided in Section 5.3.3, “Salton Sea Restoration Project,” in the Cumulative Impacts section of the EIS. Additional information on the reduction of Salton Sea inflow, as noted in this comment, has been added to the text of this section.

Comment 0018-012

Brawley Wetlands: The summary section of the DEIS (which could be the only section of the report that many persons will read) states that “[i]ncreases in TDS and selenium concentrations could cause adverse impacts to the wetland system.” DEIS at S-28. This conclusion is contrary to the analysis presented in the main body of the report. Although this same statement is repeated in Section 4.4.4.2, it is qualified immediately thereafter by the observation that the higher concentrations of TDS and selenium “should not exceed the tolerance of wetland plants, whereas

the changes in the other water quality parameters could be beneficial.” *Id.* at 4-25. The DEIS elsewhere states that “[i]t is also anticipated that the changes in water depth and water quality would not affect the ability to operate and maintain the Brawley wetland that has been constructed adjacent to the New River.” *Id.* at 4-66. After discussing the negligible impacts of the increased TDS concentration on the specific plants in the Brawley wetland in the next paragraph, the DEIS goes on to state that “[t]he small change in salinity compared with the no action alternative and the small probability of exceeding salinity tolerances of the wetland plants indicate that implementing the proposed action using the wet cooling alternative is unlikely to affect the wetland area at Brawley.” *Id.* Finally, further down on the same page, the DEIS notes that “[n]o data were available for selenium concentrations in sediments or water at the Brawley wetland; therefore, there was no evaluation of impacts to wetland vegetation. Since the total load of selenium to the New River is reduced by operation of the power plants, and flow rate reductions from power plant water use would not likely reduce water depth in the stretch of the river that supplies water to the Brawley wetland, adverse impacts to vegetation are not expected.” *Id.*

Response 0018-012

The summary of potential impacts to wetlands in the Summary of the EIS has been modified to be consistent with conclusions presented in Section 4.4.4.4.2.

Comment 0018-013

The DEIS considers two kinds of alternative technologies to reduce environmental impacts from the operation of the power plants — oxidizing catalysts to limit emission of carbon monoxide (“CO”) and some form of dry cooling to reduce consumption of water. The analysis of these alternatives in the final EIS should be modified in several respects. First, and perhaps most important, the discussion in the DEIS is almost entirely theoretical. The district court precluded the Agencies from considering the fact the transmission lines have been built and are operating, but it did not preclude the Agencies from considering the fact that the Mexican power plants have been built and have commenced commercial operations. *See* DEIS at A-79. Nonetheless, the DEIS describes the use of these alternative technologies in general terms as if the TDM and EBC plants were still in the design phase and the issue were simply whether these technologies could be worked into the design.⁶ Rather, the technical feasibility costs, and effectiveness of these technologies must be considered in the context of a retrofit to an existing plant. A retrofit presents additional technical and practical challenges and additional costs (including the opportunity cost of down time for the physical installation). The analysis needs to address issues such as whether the existing designs can physically accommodate a retrofit—*i.e.*, is there is enough space to install oxidizing catalyst equipment or enough properly situated land to accommodate the dry cooling equipment? - and how a retrofit may affect vendor guarantees for

⁶The DEIS generally describes the power plants as if they had not yet been build. *See, e.g.*, DEIS at 2-28 (“All generating units at both power plants would operate in a combined cycle mode and would be fueled by natural gas...”) (emphasis added). As noted, this approach is not required by the district court’s remedy ruling and may be misleading to readers of the document. The final EIS should acknowledge that the plants have been constructed and have commenced operation.

the other equipment at the plant that are critical to the financing of the projects. The final EIS also should include information as to the likely costs of a retrofit installation of the technologies under consideration to give the public and the agency decision makers a basis on which to judge the cost effectiveness of such measures.

In particular, contrary to the suggestion of some commentors, the retrofit of a dry or parallel wet-dry cooling system at LRPC would present major technical problems and would entail very significant costs. Parallel wet-dry cooling is not a proven retrofit technology. Such a system has been installed as a retrofit on only a single plant in the United States - the 37 MW Streeter plant in Cedar Falls, Iowa. This facility does not provide a model for the retrofit of parallel wet-dry cooling at the LRPC. The dry tower required for the Streeter plant was relatively small due to the modest generating capacity the plant and because the cooling system requirements were less demanding given the appreciably colder climate compared to Mexicali. Several acres of dry cooling towers would be required for the LRPC. These structures would need to be located close to the generating facilities where their performance would be negatively affected by the vagaries of the wind, and their interaction with the plant buildings, neither of which factors could have been considered as part of the original plant design. See Letter Report from Burns Engineering, Inc, "Retrofitting a Parallel Wet-Dry Cooling System to the La Rosita Power Complex," July 29, 2004 at 5.⁷ In addition, the cost to retrofit a parallel wet-dry cooling system -- which include not just the initial capital costs, but also the costs for engineering and design work, the cost of lost power sales during down time required for the installations, and the ongoing additional operation and maintenance costs (including the energy penalty associated with less efficient air cooling) — are likely far higher than projected by some commentors. See *id* at 4.

Second, the discussion of the environmental consequences of the alternative technologies should provide a proper context for evaluating whether the actual benefits of these technologies could possibly warrant the significant costs and uncertainties of attempting to employ them. Moreover, such discussion must focus on the TDM and EBC plants alone (or in the case of CO catalyst, just the EBC plant), as they are the only ones where the use of such technologies might be induced by means of a condition on the transmission line permits. For example, the discussion of CO catalyst in Section 4.3.5.1 of the DEIS simply refers to table 4.3-4 for information regarding potential CO reductions. DEIS at 4-57. Table 4.3-4 shows the reduction in CO assuming the use of oxidizing catalyst at all four LRPC turbines, rather than just the EBC plant. Even then, what the table shows — and what should be stated expressly in the text as well - is that effect of CO emissions from the power plants on ambient CO are already so small (less than 1% of the significance level) that there would be no justification for devoting additional resources to reduce these already negligible impacts.

The same is true is with respect to the use of dry cooling (or wet-dry cooling) to reduce water consumption. The DEIS states that the impacts to the Salton Sea from dry cooling system would be "much less" than those estimated for the proposed action, and refers the reader to Table 4.2-7. DEIS at 4-26. This statement creates the erroneous impression that the use of dry cooling could produce significant environmental benefits in terms of water quality. As noted above, Table 4.2-7 does not even show the proper "proposed action" scenario – the EBC plant together

⁷A copy of this report is attached to these comments as Appendix D.

with the TDM plant - so the reader cannot readily identify the actual potential reduction in water consumption. Moreover, simply stating the number of gallons of water that might be saved from evaporation does not provide adequate context for evaluation. The DEIS elsewhere notes that even at the rates of water consumption associated with the wet cooling systems currently in use at the plants, the impacts to the Salton Sea are de minimis - perhaps accelerating by a few days (over a period of more than 30 years) the point in time at which salinity levels in the Sea might reach the critical concentration of 60,000 mg/L. Even if this impact were reduced by 90%, it could not reasonably justify the cost and technical uncertainty of a dry cooling (or wet-dry cooling) retrofit. Moreover, the discussion of the alternative cooling technologies fails to acknowledge that a reduction in the amount of water used for cooling purposes also would reduce the amount of wastewater that would need to be treated by the power plants, therefore also would reduce the water quality benefits associated with removal of pollutants that otherwise would reach the New River and the Salton Sea.

Response 0018-013

The EIS has been revised to more fully consider all alternatives in terms of the existing power plants in Mexico, rather than using hypothetical plants for Alternative 3, Alternative Technologies. Consequently, the installation of wet-dry cooling systems and more efficient emission controls is now discussed in terms of a retrofit of the existing plants. Please see the responses to Key Issue 5 and Key Issue 6. To this end, an analysis of the cost, space, design, feasibility, and time considerations associated with retrofitting a parallel wet-dry cooling system to the power plants has been added to Section 2.3.1. Regarding the analysis of the installation of an oxidizing catalyst on all LRPC turbines, this analysis was conducted to determine the maximum potential benefit of such a modification. As noted in the comment, this benefit was found to be small. Such a level of analysis serves the purposes of the EIS and has not been refined in the FEIS. Regarding the discussion on page 4-26 noted in the comment, the text on dry-only cooling has been removed from the EIS. The replacement text on wet-dry cooling systems compares impacts to the Salton Sea for this alternative and the proposed action simply in terms of computed water quality values. Also, a discussion of water quality impacts related to reduced water treatment under wet-dry cooling has been added to Section 4.2.5. Regarding which portions of the LRPC are properly included in the proposed action, please see the response to Key Issue 4.

Comment 0018-014

The DEIS considers potential off-site measures for mitigating impacts from air emissions from the power plants, specifically in the form of emission reductions from other sources to offset emissions from the power plants. Unfortunately, like the discussion about alternative technologies, the discussion in the DEIS about mitigation is not properly focused on the emissions that properly could be the subject of a mitigation requirement in connection with the approval of the transmission lines, and does not provide an adequate context for assessing the cost-effectiveness of the various mitigation measures that are identified. The final EIS should remedy these deficiencies.

As an initial matter, any consideration of mitigation should be limited solely to significant, adverse impacts attributable to the operation of the EBC and TDM plants. As noted above, these are the only facilities whose impacts could be said to be caused by the transmission line approvals. All three turbines at the EAX plant would operate regardless of whether the BCP transmission line is permitted to operate. A mitigation condition imposed in connection with the issuance of a federal permit must be reasonably related to the impacts associated with the action for which the permit is sought.⁸ The Agencies thus have no legal authority to condition the approval of the BCP line on mitigation measures to address impacts from the EAX plant, just as they would have no legal authority to condition such approval on mitigation measures to address impacts from any other existing source

⁸See e.g., U.S. v. Mango, 199 F.3d 85, 93 (2d Cir.1999) (holding that conditions imposed in a permit for the discharge of fill material must be reasonably related to the discharge and cannot be used to regulate the larger activity giving rise to the discharge); NRDC v. EPA, 859 F.2d 156 (DC Cir. 1988) (same).

Response 0018-014

Analyses in the EIS are not for the purpose of defining the parameters of a mitigation program, since the assumptions regarding levels of impacts are generally quite conservative and are intended for supporting the weighing of alternatives. The details of any mitigation program would be described in a Mitigation Action Plan issued following the publication of the FEIS. Regarding the question of conditioning the approval of the Intergen transmission line, please see the response to Key Issue 3.

Comment 0018-015

The discussion of mitigation also should include a more rigorous assessment of the cost-effectiveness of the measures under consideration. The DEIS states that mitigation of power plant air impacts could be cost effective and “viable” but does not provide any analysis to support such a conclusion. See DEIS at S-31 and 4-58. For the most part, the discussion of mitigation measures in the DEIS is vague about which pollutants could be offset and in what quantities. Cost figures are provided for some of the measures considered but without any indication of the quantity of emissions that would be offset by such measures, so that it [is] not possible even to approximate the costs per ton of emissions offset. Where the DEIS does provide an indication of the scope of the mitigation measures that would be required to offset power plant emissions, it is apparent that the costs of mitigating air impacts are wholly out of proportion to the minimal environmental benefits, particularly when the analysts is properly focused solely on emissions from the EBC and TDM plants. The DEIS indicates that paving approximately 23 miles of roads in Imperial County could reduce PM₁₀ emissions by about 650 tons (presumably, per year). DEIS at 4-59. This figure is substantially larger than the projected annual emissions of PM₁₀ from the EBC plant and the TDM plant, which together total only 494 tons/yr.⁹ Even if the number of road miles to be paved were reduced proportionately, the cost of such an effort would clearly run into the tens of millions of dollars. Costs of this

⁹Moreover, as noted above, the PM₁₀ emission projections for the EBC plant used in the DEIS are far higher than the likely actual emissions.

magnitude are not justified when the impacts of power plant emissions of PM₁₀ already are demonstrated not to exceed the EPA significance levels used as a benchmark in the DEIS.¹⁰

¹⁰A number of commentors have criticized the DEIS's use of these EPA significance levels, asserting that they are "not applicable" to power plants. It is true that these significance levels serve a particular regulatory function in connection with the program for permitting of new sources under the Clean Air Act and that this permitting program does not apply to sources located in Mexico. As the DEIS makes clear, however, the significance levels are cited not as regulatory requirements but solely as benchmarks to assist the reader to assess the significance of the effects that emissions from the power plants may have on ambient air quality. See DEIS at 4-52 - 4-53. Because the significance levels have been established with reference to human health effects, they provide a useful and appropriate context for evaluating the air quality impacts described in the DEIS.

Response 0018-015

Any mitigation of any impacts in the United States related to emissions from the Semptra and InterGen power plants exporting power to the United States would be addressed in a Mitigation Action Plan if one were incorporated by reference in the ROD issued following publication of the FEIS. Generalized discussions on possible or conceptual mitigation actions that could be undertaken are included in this EIS, but the costing of such could be premature.

"Per year" was omitted from the DEIS text after "650 tons (598 t)" and has now been added.

Regarding the cost of mitigation measures and the types of pollutants and quantities offset by the measures, additional information on these factors has been added to Section 2.4 of the EIS.

Comment 0018-016

Finally, the analysis of the mitigation alternative in the final EIS must account for the measures already taken or planned to mitigate air quality impacts from the power plants. In response to concerns expressed about air emissions from the LRPC, InterGen committed voluntarily to install SCR [on] all three of the EAX turbines. SCR already is installed and operating on the EAX export unit, and is scheduled to be installed and operating at the other two EAX turbines by March of 2005. According to the data shown on Table 4.3-1a, the installation of SCR just on these last two EAX units will result in NO_x reductions of 1720 tons/yr. The installation of SCR on the EAX export unit will result in additional NO_x reductions of 860 tons/yr. These reductions will completely offset NO_x emissions from the EBC plant, which are only 136 tons/yr. The remaining NO_x reductions from these EAX units (approximately 2400 tons/yr) would be sufficient to offset the projected PM₁₀ emissions from the EBC plant at a ratio at more than

10 to 1.¹¹ Moreover, as noted above, the actual PM₁₀ emissions from the EBC plant are likely to be far less than the projected figure of 238 tons/yr. The emission reductions resulting from the installation of SCR on the three EAX turbines are thus more than sufficient to offset fully the emissions from the EBC plant.

¹¹In its comments on the DEIS, the Border Power Plant Working Group endorsed the concept of “cross pollutant offsetting” between NO_x and PM₁₀, at a ratio of only 1 to 1. See BPPWG comments on the Draft DEIS at 10 (comment11). In addition, as explained in the DEIS, ambient air produce particulates in the form of ammonium nitrate. See DEIS at 4-44 to 4-45. The DEIS used a NO_x-to-particulate conversion factor of 1.0 to 0.6 to estimate an upper bound impact on ambient concentrations of PM₁₀ from the secondary formation of particulates attributable to emissions from the power plants. Id. As noted above, this conversion factor is overly conservative and results in a “gross overestimate.” However, even if this conversion factor were reduced by a factor of six (to 0.1), a reduction in NO_x emission of 2400 tons/yr would completely offset the projected PM₁₀ emissions from the EBC plant.

Response 0018-016

The details of any mitigation program would be described in a Mitigation Action Plan if one was incorporated by reference in a ROD issued after the publication of the FEIS.

Comment 0018-017

The DEIS states that the cooling towers at the LRPC are natural draft towers. DEIS at 2-31. The cooling towers at the LRPC are mechanical draft towers.

Response 0018-017

The change has been made in the text as indicated in the comment.

Comment 0018-018

The DEIS states that certain water treatment facilities are “next to” the LRPC. DEIS at S-17. Likewise, on Figures S-7 and 2.2-17, the “La Rosita Tertiary Treatment Plant” is shown outside and adjacent to the LRPC. All of these water treatment facilities are within and are part of the LRPC.

Response 0018-018

The text in the Summary and the figures in the Summary and in Section 1 have been modified to indicate that the water treatment facilities are within the boundaries of the LRPC.

Comment 0018-019

The DEIS repeatedly states that makeup water for the LRPC is taken from the Zaragoza Lagoons. See e.g. DEIS at 2-41, (Table 2.5-1), 4-13, 4-19. In fact, the makeup water is municipal waste (principally sewage) that is taken at the inlet to the lagoons. As a result, the operation of

the LRPC not only reduces the pollutant loading to the New River in the water that it diverts from the lagoons, but also improves the effectiveness of the lagoons by eliminating the overloading of their treatment capacity.

Response 0018-019

A discussion of the sources of water for the LRPC and TDM plants is given on page 2-33 of the DEIS. The text states accurately that water for the LRPC would be obtained from the inlet of the Zaragoza Oxidation Lagoons, while water for the TDM plant would be obtained from the lagoons after the water was treated in the primary settling ponds. The text in Table 2.5-1 has been changed to indicate that the water used by the LRPC would be obtained from the inlet of the lagoons. Similarly, relevant text in Section 4 has been modified to reflect the source of the water more accurately. Sufficient data are not available to present a realistic and defensible discussion on the impacts to the lagoons from diverting water from its inlet.

Comment 0018-020

One commentor asserts that the DEIS provides no information on any wastewater treatment process at the power plants that is specifically designed to remove dissolved solids (TDS). In fact, the DEIS does describe the treatment processes at both the LRPC and the TDM plant that result in the removal of TDS - which are the biological sewage treatment plant and the lime softening clarifiers. See DEIS at 2-33 to 2-34. The final EIS should clarify this point by describing more explicitly the manner in which TDS is removed during these processes. Specifically, in both the biological treatment plant and the lime softening clarifiers, a portion of the compounds that are dissolved in the influent wastewater are precipitated out during the treatment process and are removed as sludge which is disposed of in a landfill.

Moreover data regarding the wastewater quality at the TDM plant confirm that these processes result in the removal of dissolved solids. The TDM treatment system contractor took numerous conductivity readings for the raw water, biological treatment system effluent and lime softener effluent for a five-month period after startup. Average conductivity readings for the three sample points were 1960 microS/cm, 1830 microS/cm, and 1600 microS/cm, respectively. Conductivity (specific conductance) is a measure of the conductive dissolved solids content (TDS) of water. The greater the conductivity the higher the dissolved solids concentration. The DEIS used a TDS concentration for the inflow the TDM plant of 1200 mg/l. Assuming that the measured conductivity value of 1960 microS/cm is equivalent to a TDS concentration of 1200 mg/l (which yields a reasonable TDS to conductivity ratio of 0.61) the derived TDS concentrations in the biological system and lime softener effluent streams would be 1116 mg/l and 976 mg/l respectively. In addition, these figures are even lower than the estimated dissolved solids concentrations that were used to calculate mass of TDS removal. (For the TDM plant, the estimated TDS concentrations in the treated water streams from the biological treatment system and the lime softening process were 1180 mg/l and 1000 mg/l, respectively). Thus, not only does actual operating experience verify the removal of TDS, it also demonstrates that mass of TDS removed is somewhat higher than what was conservatively calculated in the DEIS.

Response 0018-020

A further discussion of TDS removal by the water treatment plants has been added to Section 2.2.2. Please see also the response to Key Issue 14.

Comment 0018-021

The draft EIS states that wastewater effluent from the LRPC would be collected in a sump and then discharged to drainage channel where it eventually combines with the effluent from the Zaragoza Lagoons. DEIS at 2-33. The final EIS should include a more complete description of the configuration of the discharge points and the drainage channel system. The wastewater effluent from the LRPC is discharged into a drainage channel that eventually connects to the Drenaje de Internationale, which is a major drainage channel flowing to the east parallel to the US Mexican border. The Drenaje de Internationale is part of a large network of drainage channels that carry excess irrigation water from agricultural lands in the vicinity of the power plant. The Drenaje de Internationale empties into the New River just south of the border between Mexicali and Calexico. The point at which the power plants discharge into the drainage channel network its [is] about six miles from the point at which the Drenaje de Internationale eventually empties into the New River. The Drenaje de Internationale carries the combined flows of irrigation runoff effluent front the LRPC and TDM plant and effluent from the Zaragoza Lagoons. As a result, the quality of the [water] entering the New River from the drainage channel reflects the characteristics of this combined flow.¹

¹Thus, the attempt by one commentator to contrast the beneficial “diluent” effect of the Zaragosa Lagoon effluent on TDS concentrations in the New River to the adverse effect of the “direct discharge” into the New River of effluent from the power plants is based on a fundamental misconception about the configuration of the discharge facilities for these wastewater streams. At no times does the effluent from the plant discharge directly into the New River prior to being diluted by other flows in the Drenaje de Internationale (including the “low salinity” effluent from the Zaragoza lagoons).

Response 0018-021

The text relating to wastewater discharge at the LRPC and TDM power plants in Section 2.2.2 has been corrected to include a more complete description of the drainage system used to convey discharge effluent to the New River. Figure 2.2-17 illustrates the details of the drainage system.

Comment 0018-022

The DEIS states that wastewater collected from operations at the LRPC is discharged “untreated” to the drainage channel network that empties into the New River. DEIS at S-17. This is not correct. Floor and equipment drains are processed through an oil/water separator and demineralizer regeneration wastes are neutralized in a neutralization tank. In addition, to protect the cooling tower from fouling, each cooling tower system has a sidestream filtration system to remove suspended solids from the circulating water (and, thus, from cooling tower blowdown.

Response 0018-022

Text in the summary and in Section 2.2.2 has been changed to indicate that treated as well as untreated wastewater streams are discharged from the LRPC.

Comment 0018-023

One commentor asserts that the cumulative impacts analysis of the EIS must assume the future operation of an additional 600 MW of generating facilities at the LRPC because the BCP transmission line has the capacity to transmit an additional 600 MW of electricity. For the record, there are currently no plans to install any additional generating capacity at the LRPC.

Response 0018-023

Comment noted. The cumulative impacts analysis in the EIS reflects no expansion of the LRPC in the foreseeable future.

Comment 0018-024

On page S-26, the DEIS states that the EAX plant consumes water at the rate of 4440 acre-ft/yr. The DEIS elsewhere uses the figure of 4940 acre-ft/yr. See e.g., Tables S-1 and 4.2-1.

Response 0018-024

The typographical error on page S-26 has been corrected.

Comment 0018-025

On page 3-22, the DEIS states that the current flow of wastewater entering the Zaragoza lagoons is 27.4 mgd (30,670 acre-ft/yr). This is inconsistent with the figure of 33,200 ac-ft/yr for the flow out of the lagoons which is stated in the following paragraph (and elsewhere in the DEIS).

Response 0018-025

The text that describes the current flows at the headwaters to the treatment process has been deleted. The correct value is 33,200 ac-ft/yr (1.3 m³/s), as used in the remainder of the document.

Comment 0018-026

Footnote “a” to Table 3.2-4 cites Kasper (2003) as the source of data presented for selenium and total phosphorus. Kasper also is the source for the other data in the Table.

Response 0018-026

Footnote (a) of Table 3.2-4 has been changed to state that all the material presented is from Kasper (2003).

Comment 0018-027

The DEIS states that the concentration of selenium in the lagoon effluent is 0.0011 mg/l. See Tables 3.2-4 and 4.2-2. This figure was calculated by taking the average of all detectable concentrations in lagoon effluent samples. The more commonly accepted convention would have been to use a figure of 50% of the method detection level for samples in which no selenium was detected. By this method, the average concentration of selenium in the lagoon effluent would be closer to 0.0007 mg/l.

Response 0018-027

The method used to estimate selenium concentrations in the lagoon effluent took into account only the detectable levels of selenium. Footnotes have been added to both Tables 3.2-4 and 4.2-2 to make the reader aware that this was the approach taken.

Comment 0018-028

To calculate the concentration of selenium in the effluent from the LRPC, the DEIS applied a nominal 75% reduction factor to the average selenium concentration in the lagoon effluent. See Table 4.2-2. The LRPC uses lagoon influent, not lagoon effluent. More important, this removal factor should be applied for both the biological sewage treatment plant and the subsequent lime softening process. Using an average concentration of 0.0007 mg/l Selenium in the raw sewage entering the lagoon, assuming a 75% combined removal through the sewage treatment plant and the lime softener, and using a concentration factor of 4.8 in the LRPC wastewater discharges, we estimate that the selenium concentration in the final effluent from the plant to be 0.0008 mg/l. Attached at Appendix B is a revised table 4.2-2 that shows the estimated selenium removal figures using these revised inputs.

Response 0018-028

On the basis of the additional information provided in the comment, the figures for selenium have been revised.

Comment 0018-029

The DEIS identifies oil- and gas-field brines as a major source of salts “in waters.” DEIS at 3-14. It is unclear if this is intended to be a general statement about the source of salts in the New River. We are not aware of any oil- or gas-field operations in the area of the New River between Mexicali and the Salton Sea.

Response 0018-029

The text in the DEIS was meant to be general. However, the reference to oil and gas field brines has been deleted.

Comment 0018-030

Table 4.2-1 contains a math error. In the “No Action” column, the figure for water discharged from lagoons should be 26,989 ac-ft/yr and the figure for net water delivered to the New River should be 28,260 ac-ft/yr.

Response 0018-030

The incorrect values in Table 4.2-1 have been corrected.

Comment 0018-031

Equation F.8 in Appendix F appears to use an incorrect input to calculate that a period of 0.2 years is required to reach equilibrium in response to reduced inflows resulting from power plant operations. Common sense indicates this period should be closer to a year. The text indicates that the new inflow to the Salton Sea with both TDM and LRPC operating would be 1,329,333 ac-ft/yr. At present, inflows to the Sea approximately equal the evaporation rate because the level of the Sea is stable. Thus, multiplying the listed evaporation rate of 5.90 ft/yr by the listed area (234,113 acres) yields a loss due to evaporation of 1,381,267 acre-ft/yr, which should also equal the current inflow. The difference between this inflow figure and the inflow of 1,329,333 acre-ft/yr when both plants are operating is 51,934 acre-ft/yr. This figure is about five times higher than the projected water consumption for all of the power plants, indicating that the calculated period of 0.2 years is about five times too low. The calculation in Appendix F should be redone using the correct flow rates.

Response 0018-031

The values reported in Appendix F using Equation F.8 are correct. However, the values are only as good as the input values. For the calculations presented in the text, the evaporation rate for the Salton Sea was assumed to be equal to the referenced value: 5.90 ft/yr (1.8 m/yr). A check on the existing conditions indicates that if the evaporation rate was this high, the Sea would be out of balance, and a net loss of water would occur. For equilibrium and quoted values for inflow and area, an evaporation rate of 5.724 ft/yr (1.74 m/yr) would be required. Use of this value leads to an adjustment time of 1 year, as suggested in the comment. Similarly, other input parameters could be changed to give the same result. To avoid confusion, the evaporation rate used in the calculations has been changed to 5.724 ft/yr (1.74 m/yr), and the adjustment period has been stated to be 1 year. Other related text has been modified accordingly. This change does not affect any of the analysis of impacts to the Salton Sea in the EIS.

Comment 0018-032

Table 4.2-2 provides no value for the concentration of several pollutants under the “Both Plants Operating” column. Footnote ‘d’ explains that “[d]ischarge from the LRPC and TDM plant occurs at different locations; therefore, no single concentration can be applied to both plants operating.” This is not true when the concentrations in the discharge from each plant are equal, as is the case for BOD, COD, phosphorus, and selenium.

Response 0018-032

If the concentrations from the power plants are equal and there is a common location where the discharge waters mix, the concentration in the summed discharge water is the same as the concentration for either plant operating alone. The “not applicables” (NAs), therefore, have been replaced with a concentration value.

Comment 0018-033

Table 9-1 under ‘Water Resources: (CWA)’ states “No NPDES permit required. Other requirements may apply.” It is not clear what other Clean Water Act requirements may apply. Certainly, the Clean Water Act does not apply to discharges from the power plants, which are located in Mexico, and which discharge into the New River in Mexico. The same is true for TMDLs identified in Table 9-1 as ‘applicable’ to the New River and the Salton Sea.

Response 0018-033

The analysis of the proposed action and alternatives in this EIS includes not only the operation of the TDM and LRPC power plants but also the construction and operation of the Sempra and Intergen transmission lines. The construction of the steel lattice tower portions of both transmission lines would affect desert wash areas within the 100-year floodplain considered to be nonwetland jurisdictional waters of the United States. In accordance with the Clean Water Act (CWA), this could require a Section 404 permit from the U.S. Army Corps of Engineers and a 401 Certificate from the Regional Water Quality Control Board. The placement of tower footings and the construction of access roads would affect 0.21 acre (0.08 ha) of wash. Because of the small area affected, this project would be covered under Nationwide Permit No. 12, which regulates all activities required for the construction of utility lines and associated facilities within waters of the United States (see Section 4.4.4.1).

The text has been changed to clarify that the other requirements referred to in the table would apply only to the construction phase of the transmission line.

Total maximum daily load (TMDL) programs have been or are being established for the U.S. portion of the New River and the Salton Sea under the CWA. Therefore, the effects of effluents from the TDM and LRPC power plants on the TMDL programs are discussed in this EIS. However, the commentor is correct in stating that the CWA has no direct

application to power plants in Mexico. The section mentioning TMDLs has therefore been removed from Table 9-1.

Comment 0018-034

Table 9-I, under “Other: Pollution Prevention Act,” indicates that the certain release reporting requirements are “potentially applicable.” No such requirements apply to the power plants, which are located in Mexico, and it is not clear how such requirements could apply to the transmission lines themselves.

Response 0018-034

The commentor has correctly identified an error in Table 9-1. The section referring to the Pollution Prevention Act (United States Code [USC] 42 §§ 13101 et seq.) has been removed.

**COMMENTOR 0019: Michael H. Scheible, Deputy Executive Officer
Air Resources Board**

Comment 0019-001

1) The final EIS should clearly indicate that the area in which the transmission lines and power plants are located violates applicable ambient air quality standards, and provide tabular information about the severity of the air pollution problem.

The U.S. Environmental Protection Agency (U.S. EPA) has designated Imperial County as a nonattainment area for the one-hour and eight-hour ozone standards, and for particulate matter less than or equal to 10 microns in aerometric diameter (PM₁₀) (see 40 CFR 81.305) The DEIS discussion of air quality in the project area does not provide a summary of monitored air quality in Imperial County that would allow the reader to quickly assess the severity of Imperial County air pollution, and its attainment designations.

Table 1 summarizes recent air quality data from Imperial County monitoring sites.

The final EIS should note that Imperial County has not been designated nonattainment for carbon monoxide (CO), despite many years of monitored exceedances in the border town of Calexico, probably as a practical matter; Calexico’s high CO levels are clearly caused by emissions from the adjacent city of Mexicali and beyond the State’s control. Consider that Calexico, with a population of less than 30,000, is one of California’s smallest cities and one of only two areas with recent CO standard exceedances. Only one other California monitoring site has recorded violations of the national CO standard in recent years. This site, which has now attained the standard, is in the Los Angeles metropolitan area near the convergence of two major freeways.

TABLE 1 Imperial County Air Quality Compared to U.S. National Ambient Air Quality Standards

Compliance Measure/Year	Standard	1997	1998	1999	2000	2001	2002	2003
Ozone (concentrations in parts per million)								
Max. 1-hour concentration	.12	.160	.236	.171	.169	.167	.158	.144
Days over 1-hour standard		10	5	24	5	10	3	3
Max. 8-hour concentration	.08	.120	.104	.110	.113	.112	.104	.097
Days over 8-hour standard		50	18	20	5	18	13	8
Carbon Monoxide (concentrations in parts per million)								
Max. 8-hour concentration	9	17.8	14.4	17.9	15.5	12.3	11.6	8.8
Days over 8-hour standard		10	8	11	6	6	3	0
PM₁₀ (concentrations in micrograms per cubic meter)								
Max 8-hour concentration	150	532	176	227	268	647	373	840
Monitored days over 24-hour standard		4	2	5	6	3	4	4
Calculated days over standard		12	12	32	38	18	21	25
Annual average	50	77.7	66.1	77.8	95.2	86.2	81.3	80.0

Response 0019-001

The table provided in the comment (Table 1) has been added to Section 3.3.2 of the EIS as Table 3.3-3. Section 3.3.2 has been updated to provide current information on attainment and nonattainment designations. Section 3.3.2 does describe the City of Calexico near the border crossing as classified by the State of California as a state nonattainment area for CO.

Comment 0019-002

2) The final EIS should identify the Clean Air Act requirements for large new facilities locating in nonattainment areas, particularly requirements that such facilities must control emissions to achieve “lowest achievable emission rate” (LAER) and provide emission offsets for remaining emissions.

In drafting the Clean Air Act, Congress carefully considered whether and how to allow new polluting facilities in areas that already have unhealthy a pollution levels. Congress chose not to take a ‘not one more molecule’ approach. Instead, Congress established the “new source review” (NSR) program to balance the need for clean air with the need for economic development.

NSR requires large new facilities to utilize controls that will enable them to achieve the LAER and to offset remaining emissions by achieving enough emission reductions elsewhere in the same facility or region, at a ratio of at least 1:1:1. The greater than 1:1 offset ratio helps ensure that the net impact of the project will be to improve, rather than degrade, air quality in the nonattainment area. The specific LAER and offset cutoffs depend on the severity of the pollution problem in the area where the facility is being located, as indicated by its area classification.

Table 2 shows LAER and offset thresholds for new major sources locating in ozone, CO and PM₁₀ federal nonattainment areas. A source with a potential to emit more than the indicated thresholds would have to reduce its emissions to levels below the threshold through enforceable permit conditions or apply controls representing LAER. If the emissions remaining after the application of LAER exceed the applicable threshold, the source would have to obtain offsets, at the specified offset ratio, for all remaining emissions. For federal NSR purposes, all emitting units at the same facility, located on contiguous property and/or under the same ownership, are generally treated as a single source.

TABLE 2 Federal New Source Review Requirements

Federal Non-Attainment Area Classification	LAER/Offset Threshold (tpy)	Offset Ratio
Ozone	ROG or NO_x	
Marginal/Transitional	100	1.1:1
Moderate	100	1.15:1
Serious	50	1.2:1
Severe	25	1.2:1 to 1.3:1
Extreme	10	1.2:1 to 1.5:1
Carbon Monoxide	CO	
Moderate	100	>1:1
Serious	50	>1:1
PM₁₀	PM₁₀ or PM₁₀ Precursors	
Moderate	100	>1:1
Serious	70	>1:1

Response 0019-002

CAA requirements, such as “lowest achievable emission rate” criteria, do not apply to the power plants in Mexico. Regarding analysis of impacts in Mexico, please see the response to Key Issue 1.

Comment 0019-003

3) The final EIS should indicate that the level of control and mitigation required for new facilities locating in nonattainment areas is determined by the proposed facility’s projected emissions. The use of projected air quality impacts to determine “significance” is a misapplication of federal law.

Emissions, not calculated impacts, determine whether a new source locating in a *nonattainment* areas is “significant” and subject to permitting restrictions under the Clean Air Act. At 40 CFR 51.165(a)(1)(x) U.S. EPA indicates that: Significant means...a rate of emissions that would equal or exceed any of the following rates: Carbon Monoxide: 100 tons per year; nitrogen oxides: 40 tpy; sulfur dioxide: 40 tpy; ozone: 40 tpy of volatile organic compounds; lead: 0.6 tpy.

The significance levels cited in the DEIS are those that would “apply to any source or modification that would locate in any area designated as *attainment* or *unclassifiable* for any national ambient air quality standard...” Since Imperial County is designated as a federal nonattainment area for ozone and PM₁₀, the DEIS references to the significance level table for sources locating in attainment areas is not appropriate.

Mexicali has never been designated as a nonattainment area pursuant to the Clean Air Act because the U.S. EPA’s area designation authority does not extend beyond the U.S. borders. However, the Court’s rulings indicate that DOE can impose conditions on the transmission line permits to reduce the environmental impacts of the power plants that will be using the transmission lines. The discussion following comment number 4, below, clearly shows that air pollution concentrations in Mexicali and the downwind areas impacted by Mexicali would warrant “nonattainment” designations for ozone, PM₁₀, and carbon monoxide. The requirements set forth in 40 CFR 51.165(a)(1)(x) determine the appropriate mitigation. The use of Prevention of Significant Deterioration (PSD) significant levels, which apply to facilities affecting areas that attain air quality standards, is inappropriate.

Response 0019-003

CAA requirements do not apply to the power plants in Mexico. Regarding the appropriateness of using SLs to evaluate air quality impacts in the EIS rather than the projected emissions noted in the comment, please see the response to Key Issue 2. Regarding required conditions on the permits, please see the response to Key Issue 3.

Comment 0019-004

4) The final EIS should recognize that emissions generated in the Mexicali area contribute to poor air quality in Imperial County, and that monitored air quality levels in Mexicali violate both U.S. and Mexican air quality standards.

In its 1993 report *Assessment and Mitigation of the Impacts of Transported Pollutants on Ozone Concentrations in California*, ARB determined that emissions generated in Mexicali caused or contributed significantly to every high ozone day recorded in Imperial County from 1989 through 1991. We have enclosed a copy of the staff’s report, which was approved by the Board following a public hearing.

ARB staff reviewed all 16 ozone exceedence days recorded in Imperial County between 1989 and 1991. Our technical experts determined that emissions from Mexico had either an overwhelming or significant impact on each of these days — an overwhelming impact when emissions from Mexico caused violations in Imperial County, and significant when emissions generated in Mexico and Imperial County together resulted in unhealthy ozone levels. ARB is required to conduct such an analysis periodically to assess whether emissions generated in one area cause or contribute to violations of the State’s ozone standard in downwind areas. Since the report’s findings pertain to California’s State ozone standard — which, at 0.09 parts per million (ppm), one-hour average, is more stringent than the corresponding federal standard of 0.12 ppm — this analysis would also hold for the federal standard.

ARB's determination of ozone transport couples is reflected in the California Code of Regulations, Title 17 section 70500. (Imperial County was considered to be part of the Southeast Desert Air Basin when this regulation was initially adopted. Air basin boundaries have since been revised, and Imperial County is now considered to be part of the Salton Sea Air Basin.)

Pollution levels within Mexicali also indicate that this should be treated as a nonattainment area for source siting purposes. Since 1991, ARB has operated a network of air quality monitors in Mexicali under an agreement with ARB, U.S. EPA, and the Mexican government. The data recorded by these monitors indicate that Mexicali's air quality is clearly "nonattainment" for ozone, CO, and PM₁₀, as compared to U.S. EPA's ambient air quality standards. The monitoring data which is summarized in Table 3, indicates that:

U.S. EPA's 1-hour ozone standard was exceeded an average of 12 days per year in Mexicali.

US EPA's 8-hour CO standard was exceeded an average of 60 days per year in Mexicali.

Mexicali exceeded U.S. EPA's 24-hour average PM₁₀ standard an estimated 180 days per year from 1998 through 2002. In three years during this period, the annual average concentration was more than three times the national standard. (Because PM₁₀ measurements are taken only every six days, the expected number of annual exceedences is calculated from the observations, using U.S. EPA guidelines).

Pollution levels in Mexicali also exceeded the Mexican national ambient air quality standards, which, as Table 4 shows, are similar to U.S. standards.

TABLE 3 Mexicali Air Quality Compared to U.S. National Ambient Air Quality Standards

Compliance Measure/Year	Standard	1997	1998	1999	2000	2001	2002	2003
Ozone (concentrations in parts per million)								
Max. 1-hour concentration	.12	.211	.194	.176	.153	*	*	.171
Days over 1-hour standard		15	14	16	7	*	*	5
Max. 8-hour concentration	.08	.116	.118	.117	.119	*	*	.105
Days over 8-hour standard		22	21	22	9	*	*	7
Carbon Monoxide (concentrations in parts per million)								
Max. 8-hour concentration	9	29.9	37.0	25.9	26.9	*	*	18.1
Days over 8-hour standard		59	82	85	60	*	*	13
PM10 (concentrations in micrograms per cubic meter)								
Max 8-hour concentration	150	378	476	508	595	599	667	521
Monitored days over 24-hour standard		27	28	37	53	44	38	37
Calculated days over standard		**	132	185	309	258	**	**
Annual average	50	55.5	147.9	194	264.9	217.4	57.8	211.5

* Data analysis not complete.

** Insufficient data available for calculation.

TABLE 4 Comparison of National Ambient Air Quality Standards United States and Mexico

Pollutant	Ambient Air Quality Standard		
	Averaging time	United States	Mexico
Ozone	1 Hour	0.12 ppm	0.11 ppm
	8 Hours	0.08 ppm	—
Carbon Monoxide	8 Hours	9.0 ppm	11.0 ppm
PM ₁₀	24 Hours	150 µg/m ³	150 µg/m ³
	Annual	50 µg/m ³	—

Response 0019-004

Text has been added to Section 3.3.2 indicating that the ARB has reported evidence that transboundary migration of Mexicali sources influences the NAAQS exceedances in Imperial Valley, and the 1993 ARB report is now cited. Please also see the response to Key Issue 11. Section 3.3.2 has been revised to include information on exceedances of air quality standards in the region. Please see the response to Key Issue 8 for further discussion of this topic. This EIS does not characterize air quality in Mexicali. Please see the response to Key Issue 1.

Comment 0019-005

5) The final EIS should support Alternative 3, conditioning the permits to require the application of alternative technologies and Alternative 4, requiring the use of mitigation measures to minimize environmental impacts in the U.S.

If they had been located 3 miles north, in Imperial County, the Sempra and Intergen power plants would have been subject to Imperial County Rule 207, New and Modified Source Review (most recently revised in 1999). Rule 207 applies to all proposed new sources, or modifications to existing sources, that have the potential to emit 25 pounds per day (5 tons/yr [tpy]) or more of any nonattainment pollutant or its precursors. The rule requires the use of Best Available Control Technology (comparable to federal LAER) if emissions of any nonattainment pollutant or its precursors except for CO exceed the 5 tpy threshold. Offsets are required if potential emissions exceed 150 tpy. Offsetting emissions would have to be obtained at a ratio of at least 1:2:1. CO control requirements would also apply because Imperial County is “nonattainment” for California State ambient air quality standard for CO. BACT is required for CO emissions in excess of 100 tpy, and offsets are required at 150 tpy if the CO emissions will cause or contribute to a violation of the CO air quality standard.

Table 5 compares the emissions from the power plants, as reported in Appendix G of the DEIS to Imperial County New Source Review requirements.

TABLE 5 Mexicali Power Plant Emissions Compared to Imperial County New Source Review Cutoffs

Pollutant	Rule 207 Threshold ^a	Intergen			Sempra
		EBC (1)	EAX (2)	Total	TDM(3)
NO ₂ emissions		136 tpy	995 tpy	3000 tpy	187 tpy
NO _x LAER	5 tpy				
NO _x offsets	25 tpy				
CO emissions		727 tpy	2181 tpy	2908 tpy	181 tpy
CO LAER	100 tpy				
CO offsets ^b	25 tpy				
PM ₁₀ emissions ^c		238 tpy	499 tpy	737 tpy	256 tpy
PM ₁₀ LAER	5 tpy				
PM ₁₀ offsets	25 tpy				
ROG emissions ^d		350 tpy	542 tpy		384 tpy
ROG LAER	5 tpy				
ROG offsets	25 tpy				

^a Rule 207 limits are expressed in pounds per day. For this table, Rule 207 values have been converted to annual emission rates (tons per year) assuming 24 hour per day, 365 day per year operation.

^b CO offsets are not required if the CO standards are not violated in the affected area, and the CO emission increases will not cause or contribute to a violation of ambient air quality standards.

^c Includes generation and cooling emissions.

^d Calculated.

(1) Energía de Baja California, 2 turbines.

(2) Energía AztecaX, S. de RL de C.V., four turbines.

(3) Termoeléctrica de Mexicali, three turbines.

TABLE 6 Power Plants Emission Limits in the Border Region

State/Area	NO _x Limit (ppm)	CO Limit (ppm)
Arizona	2.5	6
California	2.5	6
New Mexico	3.5	9
Texas	5	5
Mexico		
Critical Zone ^a	42	No Limit
Rest of Border Area	143	No Limit

^a Tijuana, Cludad Juarez

Source: *Environmental Impacts of Increased Power Production in the U.S.-Mexico Border*, ARB issue paper, September, 2001.

In September 2001 ARB staff reviewed emission requirements applicable to new power plants that were being sited in the border region. The results, shown in Table 6, indicate that LAER at that time was a NO_x emission limit of 2.5 ppm, and a CO limit of 5 ppm. The emission summary provided in Appendix G of the DEIS indicates that the Semptra facility meets these emission limits but the Intergen units do not. Since air quality in Mexicali far exceeds the allowable levels established by ambient air quality standards and emissions generated in Mexicali impact air quality in the Imperial County nonattainment area, the Intergen facility should also be required to comply with these LAER emission levels. (A new power plant siting in California today would be required to achieve 2.0 ppm NO_x emission rate.)

Response 0019-005

Imperial County regulations for BACT and U.S. Federal regulations for lowest achievable emission rate (LAER) do not apply to the power plants in Mexico. The EIS analyzes the impacts of power plant emissions on air quality in Imperial County by comparing maximum modeled increases in ambient air concentrations to SLs. Please see the response to Key Issue 2. Regarding conditioning the Presidential permits, please see the response to Key Issue 3.

Comment 0019-006

6) The final EIS should indicate that the failure to reduce emissions from the power generation facilities to the greatest extent possible, and to offset the remaining emissions consistent with the Clean Air Act, will inhibit economic growth in Imperial County.

The DEIS indicates that the power plants and transmission lines would have no lasting or significant socioeconomic impact. This ignores the impact that air quality degradation associated with the power plants will have on future economic development in Imperial County.

Like all other nonattainment areas, Imperial County is required to develop plans to attain federal PM₁₀ and ozone standards. Any control measure identified in an attainment demonstration plan reduces the pool of emissions that a new source that wants to locate in Imperial County can use to offset its emissions. Increased emissions from facilities in Mexico could force Imperial County to adopt more stringent control rules and make it more difficult for new industrial facilities to locate in the County.

Response 0019-006

Analysis of air quality impacts conducted for the EIS compared local-level emissions at a series of receptor stations in the county and found that increases in PM₁₀ emissions due to power plant emissions were below SLs used as a benchmark for impacts. The plants would not, therefore, produce any significant air quality impacts in the county. Accordingly, little or no impacts on local economic development or local public health are expected in the county as a result of emissions from the power plants.

Comment 0019-007

7) The final EIS should indicate how DOE will ensure compliance with emission levels that form the basis for its decision.

DOE should include power plant emissions monitoring, reporting, and facility access requirements in its permits for the use of the transmission lines. This point should be self-evident given Interger's admission that it had provided the Court with false information about the emission controls used at its facilities. U.S. EPA's new source permitting requirements and its Title V requirements for large air pollution sources provide an appropriate model for the necessary monitoring, record keeping, and access provisions to ensure enforceability.

Response 0019-007

Regarding conditioning the Presidential permits as suggested in the comment, please see the response to Key Issue 3.

Comment 019-008

8) The final EIS should more accurately portray the potential degradation of air quality in the Salton Sea Air Basin due to the Mexicali power plants' use of wet cooling.

The DEIS acknowledges that the wet cooling technology will decrease the annual flow of New River water to the Salton Sea, accelerating the shrinking of the Salton Sea and creating the potential for increased PM₁₀ emission as the lakebed is exposed. However, the analysis provided in the DEIS does not support its conclusion that the potential new PM₁₀ will be minimal. The final EIS should indicate a potential for an increase in short-term PM₁₀ violations under high wind conditions.

The DEIS provides a projection of annual average fugitive dust emissions for the Salton Sea, an inappropriate statistic for PM₁₀ problems associated with dry lakebeds. Like many fugitive dust sources, dry lakebeds are a PM₁₀ problem primarily under high wind conditions. The PM₁₀ emissions resulting from high wind episodes can cause exceedences of the 24-hour standard without endangering attainment of the annual average standard. This can be illustrated by looking at recent air quality data from Inyo County, home to Owens Lake. Table 7 compares maximum 24-hour concentrations to the annual average concentrations recorded in Inyo County in recent years. Although Owens Lake is the State's largest single source of particulate matter, Inyo County has violated the annual average national PM₁₀ standard for only two years from 1997 through 2002. The County violated the 24-hour standard every year in that same period averaging a projected 14 violations per year.

The EIS analysis should also address the role that wind speed plays in ambient PM₁₀ levels. The Salton Sea Science Office convened a panel of experts in 2002 to examine potential fugitive dust problems at the Salton Sea (Dale Gillette, whose research is cited in the DEIS was among the panel members). Citing the World Meteorological Organization, the report indicates that wind

TABLE 7 Inyo County PM₁₀ Data

	National Standards	1997	1998	1999	2000	2001	2002	Ave.
Max. 24-hr concentration $\mu\text{g}/\text{m}^3$	150	402	1116	514	715	3189	219	1026
Annual average $\mu\text{g}/\text{m}^3$	50	14.6	53.8	15.3	39.0	69.6	31.2	37.3
Measured days over 25-hr standard		6	7	2	2	13	2	5
Calculated days over 24-hr standard		17	22	2*	13	18	13	14

* Measured exceedences.

TABLE 8 Wind Speed Occurrences at the Salton City CIMIS Monitoring Site

Wind Speed Category	1997 Data ^a	1998 Data*
≥15 mph	397 hours	407 hours
≥18 mph	269 hours	229 hours
≥21 mph	95 hours	56 hours
≥24 mph	35 hours	23 hours
≥27 mph	20 hours	8 hours
≥30 mph	11 hours	1 hour

* CIMIS data extrapolated to 10 meters.

speeds as low as 15 miles per hour (mph) can initiate wind erosion, and that serious dust storms are associated with wind speeds, 10 meters above the ground, starting at 20-22 mph. The panel reviewed 1997 and 1998 meteorological data collected by the California Irrigation Management Information System (CIMIS) on the west shore of the Salton Sea. The data, summarized in Table 8, indicate that wind speeds exceeded the erosion threshold an average of 402 hours each year. Winds reached speeds exceeding the dust storm threshold from 56 to 95 hours per year in these two years.

Finally, the DEIS indicates that the narrow width of the exposed strip, estimated at “7 foot 18 inches wide,” would limit the potential for dust storm. Dust storm observations at Owens Lake do indicate a relationship between the size of the exposed area and the potential for PM₁₀ emissions. However, we disagree with the DEIS analysis in two aspects. First, the reduction in lake level is not likely to produce a uniform strip of exposed land. Lake level modeling illustrated in the “Final Panel Report” indicates that initially, lake level reductions will be most evident around the southern portion of the lake. Second, the extent of the exposed area subject to wind scouring and erosion is also influenced by the wind direction. Even with a uniform “narrow strip,” the width would be a limitation only where the wind direction is perpendicular to the exposed strip. Should the wind follow the length of the exposed area, the width would not have the same limiting effect.

Response 0019-008

The text in 4.3.4.4.4 "...a thin strip 7 ft 18 in. (2.3 m) wide" has been removed from the EIS.

The analysis undertaken in Section 4.3.4.4.4, based on extrapolation of measurements on Owens Lake by Gillette et al. (2004), represented an approach for estimating maximum possible theoretical emission levels and encompassed many conservative assumptions (such as the power plants in Mexico operated at full capacity 24 hours a day and 365 days a year, and the windier Owens Lake area is representative of the Salton Sea). The revised analysis yielded an expected value of less than 10 tons/yr (9 t/yr) of additional lakebed PM₁₀ emissions, as described in Section 4.3.4.4.4 of the FEIS. This value is based on a further examination of the differences between the emissive characteristics of Owens Lake and the Salton Sea shoreline area lakebed, as described in the added text. This analysis draws upon differences in lakebed, characteristics described in the EIS/EIR on the Imperial Irrigation District/San Diego County Water Authority Water Conservation and Transfer Project (IID 2002).

The mention of convening a panel of experts by the Salton Sea Science Office to examine the potential fugitive dust problems at the Salton Sea and the mention of the importance of wind speed in initiating erosion are acknowledged. However, in order to make some quantitative assessments, it was necessary to draw upon an available long-term measurement study of fugitive dust emission from a representative dried brine lake surface. Such a surrogate database was available from the Owens Lake study by Gillette et al. (2004). The Owens Lake study represented a 12-month observation period, which encompassed the type of conditions reviewed by the panel of experts convened by the Salton Sea Science Office as described in the comment. For example, winds speeds at Owens Lake were observed to often range between 10 and 45 mph (16 and 72 km per hour). (The potential for frequent or severe dust events is much greater at Owens Lake than at the Salton Sea because of the different wind profiles at these sites, illustrating the conservative nature of the analysis undertaken, which would thereby tend to overestimate a fugitive dust production term based on the Owens Lake model.)

Thus the estimate of <10 tons/yr (9 ton/yr) from the documented analysis conducted in Section 4.3.4.4.4 would not support the supposition that "there is a significant likelihood that the projected decreases in the lake level...would increase the number or extent of violations of the 24-hour PM₁₀ air quality standard." Please also see the response to Key Issue 17.

Comment 0019-009

9) The discussion of potential ozone impacts is misleading and should not be included in the final EIS.

The DEIS states that additional NO_x emissions will not significantly increase ozone in the border region, and implies that additional NO_x emissions may in fact result in lower ozone

concentrations. This conclusion is largely based on a comparison of observed ozone and NO_x concentrations at four monitoring sites in Calexico and El Centro (DEIS figures 4.3.1 to 4.3.4). The common theme in these figures is a negative correlation between ozone concentrations and NO_x concentrations. This simple analysis is not sufficiently robust to be included in the final EIS.

Ozone is formed through a complex chemical process influenced by many factors. Time is one of those factors: different chemicals are formed over time as combustion products such as NO₂ react with other gases. Because the air mass is constantly moving, the peak NO_x concentrations and peak ozone concentrations associated with any given emission source are most likely to show up at different locations, with the peak ozone levels occurring downwind of the peak NO_x levels. It is worth noting that the predominant winds recorded during the summer, when ozone formation is most likely, would tend to blow emissions generated near Mexicali towards the populated areas in Imperial County (see DEIS figure 3.3-11).

Of course a simple two dimensional analysis also fails to account for factors such as other pollutants that contribute to ozone formation, the geographical distribution of other emission sources, changes in emission rates and ambient concentrations throughout the day, and meteorological conditions that are conducive to the formation of ozone.

The DEIS analysis of the impact of additional NO_x emissions on ozone concentrations is inconclusive at best. As we indicated in comment number 4, the ARB's 1993 analysis of the impact of transported air pollutants indicates that emissions from Mexicali caused, or significantly contributed to, every high ozone day recorded in Imperial County over a two-year period.

Response 0019-009

DOE and BLM disagree that the discussion of O₃ impacts presented in the DEIS should be removed. However, Figures 4.3.1 through 4.3.4 have been removed from the EIS for clarification, and the text has otherwise been significantly revised. The analysis of O₃ impacts did not rely on the removed correlations of observed data for O₃ and NO_x concentrations, as stated in the comment, but rather solely on the use and results of the EPA's OZIPR model as described in Section 4.3.2.2.2. The OZIPR modeling, which was undertaken to analyze the O₃ impact from precursor emissions (primarily NO_x and VOC) from the power plants operating in Mexico, represents an appropriate level of analysis for the purposes of the EIS, and it drew from the best available data and best available informational extrapolations. The purpose of the OZIPR modeling was to characterize the maximum influence of emissions from the Mexico power plants on maximum possible O₃ levels in the air shed. The approach took into account, to the extent possible, relevant factors and drivers such as meteorological conditions, chemical species present, and speciation. The omission of VOC measurement data in the current and historic measurement ARB databases imposed modeling challenges that were overcome to the extent possible, as described in the EIS.

As described in Section 4.3.2.2.2, “OZIPR is a single-day one-dimensional photochemical box transport model that focuses on the atmospheric chemistry that leads to O₃ formation. It is a simple trajectory model capable of utilizing complex chemical mechanisms, emissions, and various meteorological parameters of the lower atmosphere. Its physical representation is a well-mixed column of air extending from the ground to the top of the mixed layer. This idealized air column moves with the wind (along the wind trajectory) but cannot expand horizontally. Emissions from the surface are included as the air column passes over different emission sources, and air from above the column is mixed in as the inversion rises during the day. Complex chemical mechanisms may be input into OZIPR to describe the chemical processes that occur within this modeled air mass. In addition to individual trajectory simulations, the program can use the Empirical Kinetic Modeling Approach (EKMA) to estimate O₃ levels from different types and amounts of precursor emissions.”

Thus the factors modeled are largely consistent with those referenced in the comment. The low response of O₃ to changes in NO_x reported in the EIS are the direct result of the OZIPR modeling using inputs that included regional and power plant emissions of NO_x and VOC. These results are illustrated in Figure 4.3-1, which has now been added to the EIS. In addition, a sensitivity analysis of the model results has been added to Appendix G. This analysis shows that even under the most favorable conditions for O₃ formation, no more than minor increases in peak O₃ concentrations would be expected resulting from power plant operations.

**COMMENTOR 0020: Terrence O’Brien, Deputy Director,
Systems Assessment & Facilities Siting Div.
California Energy Commission**

Comment 0020-001

Impacts from Emissions of Volatile Organic Compounds

The Draft Environmental Impact Statement (DEIS) identifies VOCs, in addition to oxides of nitrogen (NO_x), as an ozone (O₃) precursor (p. 4-47). It presents ozone and nitrogen dioxide (NO₂) data from three air monitoring sites in Imperial County and Mexicali (pp. 4-47, 48) and concludes that, since high ozone levels mainly occur at lower NO₂ levels at these sites, the condition exists such that introducing more NO₂ reduces ozone (p. 4-47). Based on this observation, the DEIS concludes that the Imperial County-Mexicali area within the Salton Sea Air Basin represents an urban-like region where ozone formation is VOC-limited, not NO₂ limited (p. 4-47). In addition, the proposed action lies within the ozone nonattainment area in Imperial County (p. 4-38).

The section on ozone modeling (p. 4-50 et seq.) investigates the impact of plant operation on incremental ozone formation in the VOC-limited area by discussing changes due to NO_x emissions from the projects. No meaningful increase or decrease in ozone levels was found. However, as noted above, the DEIS determined the area to be VOC-limited, not NO_x limited.

The only mention of VOCs consists of an estimate in Table G-1 of VOC emissions for the Termoelectrica de Mexicali Power Plant (TDM), with no related discussion of potential impacts. Although section 4.3.2.2.4 states that “VOC emissions for the turbines at the TDM facility and the La Rosita Power Complex (LRPC) were estimated using an EPA AP-42 natural gas combustion emission factor” and “These data were drawn upon in the analysis and discussion of O₃ formation in Section 4.3.4.4.2” (p. 4-31), it is unclear how, or even if, VOC data were used in that analysis. Staff suggest that a meaningful analysis of the impacts of project operation on ozone formation in the area would need to include an explicit discussion of project VOC emissions in the VOC-limited, ozone nonattainment area and a discussion of potential mitigation measures as appropriate.

Response 0020-001

Background levels of regional VOC were overwhelmingly dominant relative to the small amounts of VOC emissions from the TDM and LRPC power plants. VOC emissions from the TDM and LRPC plants had little influence on the OZIPR modeling of any O₃ formation resulting from TDM and LRPC emissions, consistent also with a sensitivity plot (see Responses 0019-009 and 0007-003) for OZIPR modeling of O₃ response to changes in NO_x and in VOC. Nevertheless, the VOC emissions from the TDM and LRPC plants were estimated and were included as an input parameter in the OZIPR modeling along with higher regional VOC emission rates. However, the identification of the source of the power plants emission rates used in modeling was incorrectly reported in Section 4.3.2.2.4, page 4-31, of the DEIS and has been changed in the FEIS. OZIPR modeling used the emission rates reported in Table G-1 of the EIS, which are roughly four times greater than the AP-42 (EPA 1998) values that were incorrectly referenced. This value was 1,069 tons/yr (970 t/yr), whereas the larger initial regional VOC emission rate was 47,605 tons/yr (43,187 t/yr). As described in Section 4.3.4.4.2, because of the absence of actual data, other surrogate data were used when necessary, including assumptions of VOC speciation. As described in Section 4.3.4.4.2, sensitivity tests showed that modeled O₃ estimates were not unduly influenced by the initial default parameters assumed related to VOC. Please see also the response to Comment 0007-003 and Key Issue 12.

Generalized discussions on possible or conceptual mitigation actions that could be undertaken are included in Sections 4.3.6.1 and 4.3.6.2. The details of any mitigation program would be described in a Mitigation Action Plan if one is incorporated by reference in a ROD issued after the publication of the FEIS.

Comment 0020-002**Best Available Control Technology**

The DEIS should note that BACT for NO₂ and VOC would likely be required if the TDM and LRPC generation projects were located in Imperial County. Whether or not BACT would be required for any proposed project is determined by the air district that has jurisdiction over the

project according to its applicable rules. Similarly, the district also specifies the BACT levels that would be required.

Imperial County Air Pollution Control District (District) Rule 207 C.1 specifies that an applicant shall apply BACT to any new Emissions Unit which has a Potential to Emit 25 pounds per day or more, (or approximately 5 tons annually, assuming continuous operation) of any nonattainment pollutant or its precursors. Additionally, District Rule 101 lists hydrocarbons and nitrogen oxides as ozone precursors; and, hydrocarbons, nitrogen oxides, and sulfur oxides as precursors to PM₁₀.

EIS Table 4.3-1a shows that emissions of PM₁₀ and NO₂ would far exceed the 5 ton BACT threshold. EIS Table G-1 shows that VOC emissions would also substantially exceed the threshold.

The Salton Sea Air Basin is classified by the state as a nonattainment area for PM_{2.5} and PM₁₀ and is federally classified by the EPA as a moderate nonattainment area for PM₁₀. As the DEIS notes, the U.S. Circuit Court of Appeals has mandated that the EPA reclassify Imperial Valley from a moderate to a serious nonattainment area for PM₁₀ (p. 3-53). The air basin is classified as a transitional nonattainment area for ozone per the National Ambient Air Quality Standards, and a moderate nonattainment area for ozone per the California Ambient Air Quality Standards. Thus, it is likely that the district would have required BACT for NO₂ and VOC as PM₁₀ and ozone precursors, were the TDM and LRPC projects located in Imperial County.

Because it is the district's responsibility to set BACT levels as noted above, Energy Commission staff cannot definitively identify BACT levels that might have applied to the projects. However, Table 1 below compares project emissions to BACT levels recommended by EPA and/or the California Air Resources Board.

The EIS discusses the use of more efficient CO emissions controls and concludes that both with and without CO oxidizers, increases in ambient CO concentrations in Imperial County are well below significance levels established by the EPA (p. 4-57). However, the use of CO oxidizers would also reduce emissions from VOCs. Since VOCs are ozone precursors and the Salton Sea Air Basin is nonattainment for ozone, the EIS should discuss the addition of CO oxidizers on the LRPC facility (the TDM facility includes such oxidizers) as a mitigation measure for potential ozone increases due to plant operations.

Table 1
Project Emissions vs. Recommended Combined Cycle BACT Levels
(parts per million)

EMISSION	LRPC	TDM	Recommended BACT
NO _x	4	2.5	2.0 ^a
CO	30	4	4 ^a
VOC	not specified	not specified	2 ^b

^a Letter from Gerardo Rios, Chief, EPA Region IX Permits Office, to Pang Mueller, Senior Manager, South Coast Air Quality Management District, Re: Inland Empire Energy Center, September 5, 2002.

^b California Air Resources Board, Guidance for Power Plant Siting and Best Available Control Technology, July 22, 1999, p. 32.

Response 0020-002

BACT regulations mentioned in the comment do not apply to the power plants in Mexico, nor do U.S. air quality attainment classifications apply in Mexico. The EIS analyzes the impacts of the power plants as they are designed. With regard to plant VOC emissions, while it is noted that oxidizing catalyst would reduce these emissions, these need be recognized as being very small, particularly in relationship to regional emissions, which are overwhelmingly dominated by vehicular sources (e.g., in the ICAPCD in 2003, emissions were approximately 12,000 tons/yr (10,886 t/yr) for ROG alone). Further, the influence of plant VOC emissions on O₃ formation was analyzed in the EIS and found to be very minor.

**COMMENTOR 0021: Enrique Manzanilla, Director, Cross Media Division
EPA Region IX**

Comment 0021-001

LRPC and TDM facilities, EPA continues to be concerned about the project's contribution to air quality impacts in the Imperial Valley-Mexicali region. As the DEIS indicates, there are substantial limitations in modeling ozone impacts, and it is difficult to conclude with certainty whether emissions from the TDM and LRPC plants will worsen air quality in Imperial County, which is an ozone non-attainment area. The document analyzes an alternative that includes mitigation measures such as off-set emission reductions as a means of ensuring that air quality would not be worsened by the project or the related power plants. Power plant facilities permitted in the U S such as the 510-megawatt Otay Mesa facility in San Diego County, California are required to obtain emission offsets to address the uncertainty related to modeling projected emissions and to ensure that there would not be a net increase of air pollution in an air basin. We recommend that off-site mitigation measures to reduce basin-wide emissions be incorporated as part of the preferred alternative.

Response 0021-001

The commentor's observations on the limitations on O₃ modeling are noted as is the expressed preference for the mitigation alternative.

Comment 0021-002

In addition, EPA is concerned about the cumulative impacts to the New River and Salton Sea, especially in light of other planned projects such as the Mexicali II Wastewater Treatment Plant and the multi-agency Quantification Settlement Agreement for water use in the basin. The DEIS provides a thorough analysis of the impacts to water supply and quality in the New River and Salton Sea, and discusses the environmental trade-offs between reducing water supply and potentially improving water quality. EPA recognizes the difficulty in balancing these trade-offs, but we are concerned that the water quality benefits from reducing some pollutants might be outweighed by increased concentrations of other pollutants. Specifically, decreased flows into

the New River will result in increased concentrations of total dissolved solids (salinity) and selenium, which play a significant role in the degraded water quality of the New River and Salton Sea. We encourage DOE to work with the Colorado River Basin Regional Water Quality Control Board to identify the appropriate balance in these complex trade-offs and identify any feasible mitigation measures which could be included in the preferred alternative to reduce cumulative water quality impacts.

Response 0021-002

A discussion of potential water mitigation measures has now been added to Sections 2.4 and 4.2.6. Mitigation for water resources would focus on potential measures that could be implemented in the United States and Mexico to offset increased TDS concentrations resulting from reduced flow volumes in the New River due to power plant operations. These measures would fall under the general category of water conservation; therefore, the measures described in Section 2.4.1 are generally similar to those previously developed and being implemented by the Imperial Irrigation District (IID) as part of the Water Conservation and Transfer Project taking place in Imperial County. A program to mitigate water consumption by the two power plants in Mexico could conceivably consist of a combination of water conservation programs similar to those being implemented in Imperial County, but any such actions appear to raise significant questions as to feasibility based on the financial, legal, environmental, and policy issues involved.

Comment 0021-003

The DEIS analyzed the potential impacts to air quality in the Mexicali and Imperial Valley region from the construction and operation of the transmission lines and the TDM and LRPC facilities. Imperial County is in the Salton Sea Air Basin, and is classified as non-attainment for 1- and 8-hour ozone and particulate matter less than 10 microns (PM₁₀) standards. Regarding the new PM_{2.5} standard, the state initially recommended that part of Imperial County be designated non-attainment for the PM_{2.5} standard. Based on the most recent ambient air monitoring data, EPA stated in a June 29, 2004 letter to the State that, “the most recent air quality monitoring data indicate that Imperial County meets the fine-particulate standard.” While our response to the state’s initial recommendation expresses our intent, it does not constitute an official designation. EPA expects to make that official determination by the end of 2004. In any event Imperial County experiences PM_{2.5}, levels that are very close to exceeding the federal standard.

Response 0021-003

The EIS notes that Imperial County is designated as a nonattainment area for O₃ and PM₁₀. The information in the comment regarding PM_{2.5} in Imperial County is acknowledged.

Comment 0021-004

Carbon monoxide (CO) and PM₁₀ and nitrogen oxides (NO_x): The air quality impacts from the TDM and LRPC units were estimated using the AMS/EPA Regulatory Model (AERMOD),

surface meteorological data from the Imperial Airport, and upper air data from Miramar station in San Diego, California. The results, presented in Table 4.3-6, indicate that the increase in criteria pollutants at the maximum receptor point in the United States from the TDM and LRPC units are below the significance levels for CO, PM₁₀, and nitrogen dioxide (NO₂). The impact of secondary formation of PM₁₀ from plant emissions of ammonia was also evaluated, and was determined using a conservative production term for ammonium nitrate (NH₄NO₃) based on a study using winter conditions in San Joaquin Valley. The increase of 24-hour PM₁₀ (from emissions of ammonium nitrate) was calculated to be approximately 1 to 2 percent of total PM₁₀, a very small amount. EPA believes that the analysis correctly shows that the project impact levels will be below significance levels for CO, PM₁₀ (primary and secondary), and NO_x.

Response 0021-004

The comment that the EPA believes that the analysis correctly shows that the project impact levels will be below SLs for CO, PM₁₀, and NO_x is noted.

Comment 0021-005

Ozone: As the DEIS acknowledges, it is difficult to quantify the impact of a small number of facilities (i.e., the TDM and LRPC units) on the maximum ozone concentration in an airshed. In the Imperial County/Mexicali area, the absence of area-specific information on mixing height, temperature, relative humidity, and levels of volatile organic compounds (an ozone precursor) makes the modeling of ozone formation particularly difficult. The analysis of ozone formation presented in the DEIS instead relies on ambient air monitoring data analysis and the EPA Ozone Isopleth Plotting Package Research (OZIPR) model to determine the potential influence of NO₂ emissions (the primary pollutant emitted) from the TDM and LRPC facilities on ozone concentrations in Imperial Valley. For ambient air data analysis, hourly ozone and NO₂ data from three air monitoring sites were presented. The results of this analysis indicate that higher ozone levels primarily occur with lower NO₂ levels. The document concludes that increased NO_x emissions from the TDM and LRPC plants could produce a decrease in ambient ozone concentrations. However, peak ozone concentrations generally occur in areas away from sources of high NO_x emissions, not at the monitor where high NO₂ concentrations are measured. As such, the conclusion that ozone impacts will not be significant should be carefully interpreted.

Recommendations: The limitations and uncertainties of the modeling analysis should be clearly disclosed in the Final EIS. Given these limitations, the document's conclusions regarding impacts to air quality should be qualified to indicate that if modeled ozone projections are not correct, impacts to air quality from TDM and LRPC emissions could be significant.

Response 0021-005

The DEIS made the following conclusionary statement in Section 4.3.4.4.2 regarding the OZIPR modeling approach undertaken in the EIS: "In conclusion, OZIPR modeling of O₃ formation in the Imperial Valley-Mexicali area does not indicate any meaningful decrease (or increase) in O₃ levels as a result of the operation of the TDM or LRPC power plants." This is consistent with the small responses of O₃ to changes in NO_x found

during the OZIPR modeling of the impacts of plant emissions upon receptors in the United States. This conclusion was based on the OZIPR modeled increments of O₃. The limitations and uncertainties of the modeling analysis associated with the extrapolated input parameters were addressed, and Section 4.3.4.4.2 references the OZIPR sensitivity tests performed. Additional discussion of the sensitivity analyses performed has been added to the O₃ discussion in the EIS, and sensitivity analysis results have been added to Appendix G. The low response of O₃ to a small change in NO_x delta that was found is consistent with the O₃ isopleths used in the EPA's EKMA approach, as described in greater detail in the response to Comment 0007-003 and now shown in Figure 4.3-1. Please see also the response to Key Issue 12 regarding the uncertainty of the O₃ analysis.

Comment 0021-006**Mitigation of Air Quality Impacts**

Because of the limitations of the ozone modeling and impact analysis, the magnitude of ozone precursor emissions (i.e., NO₂) and the proximity of the TDM and LRPC facilities to Imperial County, it is difficult to conclude with certainty that the ozone impacts from this project will be significant. Furthermore, the TDM and LRPC facilities are not required to seek emissions offsets as they would if they were located in the U.S. In order to ensure that there will not be increased concentrations of ozone precursor pollutants in the air basin from the TDM and LRPC facilities, mitigation projects to reduce basin-wide pollutant emissions could be implemented.

Recommendations: The list of mitigation measures in Section 2.4 of the EIS provides an excellent starting point for potential mitigation projects. EPA recommends that DOE and the project sponsors continue to collaborate with the Imperial County Air Pollution Control District and the Border Power Plant Working Group to prioritize which measures would be most effective in reducing air quality impacts from the related TDM and LRPC plants. The Final FEIS should address how these mitigation measures could be implemented, and evaluate the related effects on air quality. EPA recommends DOE include mitigation commitments, as appropriate, in the Record of Decision.

Response 0021-006

Specific mitigation measures could be identified in a Mitigation Action Plan issued after the completion of the FEIS. Such measures, therefore, have not been added to the EIS.

Comment 0021-007

EPA is concerned about the potential cumulative impacts to the New River and Salton Sea from the use of treated wastewater for cooling the TDM and LRPC facilities. Under the Clean Water Act (CWA) Section 303, the New River is listed as impaired for total suspended solids (TSS), pesticides, bacteria, nutrients, and volatile organic compounds. Salton Sea is listed as impaired for salinity, nutrients, and selenium. Use of treated wastewater will improve water quality in the New River and Salton Sea by decreasing the concentrations of phosphorus, chemical oxygen

demand, biological oxygen demand, TSS and pathogens. However, the associated reduction in water flows will also result in increased concentrations of total dissolved solids (salinity) and selenium, both of which contribute to degraded water quality.

Recommendation: DOE should work with the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB) to address the trade-offs between reduced flows and water quality improvements, and identify any feasible mitigation measures which could be included in the preferred alternative to reduce cumulative water quality impacts. The Final EIS should describe the coordination process with the CRBRWQCB.

Response 0021-007

A discussion of potential water mitigation measures has now been added to Section 2.4.1 and Section 4.2.6 as part of the mitigation alternative. These potential measures would focus on water conservation as a means of offsetting increased TDS concentrations resulting from reduced flow volumes in the New River due to power plant operations. As a result, these sections analyze ways the proposed projects could potentially work with the IID, which oversees water use and conservation efforts in Imperial Valley. As discussed in these sections, the feasibility of implementing the potential measures is questioned due to significant financial, legal, environmental, and policy issues.

Comment 0021-008

In the next few years, several neighborhoods in Mexicali plan to begin connecting to the municipal sewer system. The EIS should discuss the potential cumulative impacts to water quality and supply in the New River and Salton Sea from increased effluent levels from the Zaragoza Oxidation Lagoons wastewater treatment facility as new neighborhoods are connected to the sewer system.

Response 0021-008

Section 5.3.7.2 of the Cumulative Impacts section now includes a discussion of the impacts of increased water usage and discharge by the increasing population of Mexicali.

Comment 0021-009

Table 5.3-1 and Section 5.3-2 should be changed to reflect that the Mexicali II Wastewater Treatment Project is now underway (not proposed). EPA accepted the project for Border Environmental Infrastructure Fund (BEIF) assistance, and the subagreement between the North American Development Bank and the local utility for disbursement of EPA BEIF funds was signed on June 24, 2004.

Response 0021-009

Table 5.3-1 and Section 5.3-2 have been changed to reflect the fact that construction of the Mexicali II Wastewater Treatment Plant project is currently underway.

Comment 0021-010

The discussion of cumulative impacts for the Quantification Settlement Agreement (QSA) (Sec. 5.3.1), and the Mexicali II Wastewater Treatment Plant (5.3.2) is inconsistent with regard to salinity changes and changes in inflow to the Salton Sea. For example, Section 5.3.1 indicates that the QSA, in combination with other reasonably foreseeable projects such as the Mexicali II wastewater treatment project will result in the Salton Sea reaching a salinity of 60,000 milligrams/litre (mg/L) of total dissolved solids (TDS) in 2019 and 142,000 mg/L by 2074. However, Section 5.3.2 indicates that the Mexicali II Project will result in the Salton Sea reaching a salinity of 60,000 mg/L a year earlier in 2018 (versus 2019 projected cumulatively for the QSA), and an equilibrium of 150,741 mg/L of TDS in the year 2074 (versus 142,000 mg/L by 2074 projected cumulatively for the QSA).

Response 0021-010

Discrepancies between the projections in Sections 5.3.1 and 5.3.2 can be attributed to the methods used by the analysts who prepared the impact evaluations for the two projects. The evaluation in the EIS does not include an independent analysis of these projects and their projected impacts but only reports on the impacts published by other investigators. Section 5.3.1 discusses the projected impacts of the IID Water Conservation and Transfer Project. In this section, it is reported that the Bureau of Reclamation's (BOR's) Salton Sea Accounting Model predicts that, with implementation of the proposed water transfer, salinity would reach 60,000 mg/L in 2019 (Weghorst 2004). The discussion of the Mexicali II Wastewater Treatment Project presented in Section 5.3.2, however, does not make comparable predictions regarding the increase in salinity over time. Rather, it states that the project would result in an annual increase in salinity to the Salton Sea of about 0.2 to 0.3%. As discussed in Section 5.4.2.1, one of the cumulative effects of these projects is an increase in Salton Sea salinity.

COMMENTOR 0022-001: Representative campaign letter**Comment 0022-001**

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Interger's La Rosita Power Complex and Semptra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

Interger failed to install advanced NO_x controls on one of its export turbines on start-up in June 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Interger a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permit are vital.

Response 0022-001

The commentor's concerns are noted. Regarding the request that the Presidential permits be conditioned on mitigation, monitoring, reporting, and enforcement measures, please see the response to Issue 3. Regarding the health impacts in Imperial County from the operation of the power plants, please see the response to Key Issue 13.

Comment 0022-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers - water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Response 0022-002

Operation of the power plants would decrease the flow of water in the New River and increase its salinity. This effect would slightly increase the salinity of the Salton Sea (about 0.14%), as discussed in Section 4.2.4. Cumulative impacts to the Salton Sea, including effects from other actions, are discussed in Section 5.4.2.1.

Comment 0022-003

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons/yr of additional particulate matter. Retrofitting the existing wet cooling systems with parallel wet-dry cooling would greatly reduce consumptive water use at the plants while allowing the plants to generate full power on hot days. The parallel wet-dry option would also restore most of the river's flow to the sea and minimize particulate matter. Processing wastewater to reduce or eliminate salinity

prior to discharge into the river would effectively address a pollutant of concern for the river and sea.

Response 0022-003

Regarding potential additional shoreline PM₁₀ emissions, the FEIS now concludes in Section 4.3.4.4.4 that additional emissions would be less than 10 tons (9 t). Further discussion of the parallel wet-dry cooling option has been added to the FEIS in Section 2.3.1, describing the technology in terms of a retrofit to the existing plants, and in Section 4.2.5.2 regarding impacts to water resources as compared with wet-only cooling.

Comment 0022-004

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation.

DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of the U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts.

Response 0022-004

Additional analysis of potential water mitigation measures has been added in Section 2.4.1 of the EIS. Regarding impacts in Mexico, please see the response to Key Issue 1. Regarding U.S. air regulations, please see the response to Key Issue 2. Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3. Finally, regarding the impacts of power plant operations on the 4,000-mg/L TDS water quality objective for the New River, an analysis of such impacts has been added to Section 4.2.4.1.2.

**COMMENTOR 0023: William L. Fang, Deputy General Counsel & Climate Issue
Director, Edison Electric Institute**

Comment 0023-001

In its May 12, 2004, "Memorandum of Points and Authorities in Support of Federal Defendants Unopposed Motion for the Court to Continue to Defer the Setting Aside of Presidential Permits,"

the federal government advised the court that DOE/BLM had prepared the draft EIS, that it was available for public comment, that the plaintiffs requested an extension of the public comment period on the draft EIS to July 30, 2004, and that normally the NEPA process would be complete by the end of November. The Memorandum also notes that with the comment period extension the EIS process “may” extend “into early 2005.” Nevertheless, the government concluded that deferral just until December 2004 of the decision on the permits was appropriate, subject to a second request from federal defendants for additional time should circumstances change as the NEPA process moves forward. The Memorandum indicates that the plaintiffs would “not oppose an extension of up to 60 days beyond December 15, 2004.” Consequently, the court issued a new order on May 19, 2004, deferring action on the permits until completion of the EIS process, or December 15, 2004, “whichever is earlier.”

As noted by the above-referenced Memorandum, when DOE proposed in October 2003 to “skip straight to the more complex and detailed EIS process,” EEI was initially concerned because the DOE proposal to have an EIS address CO₂ emissions from such generating units may be misunderstood by some to imply that such emissions are capable of creating “significant” environmental impacts, which is the criterion for an EIS under NEPA. The explanation for this choice given in the Memorandum — namely, that the decision to “complete a full-blown” EIS although “not required” by the court’s order, would increase “opportunities for public participation in the NEPA process” and shorten “the steps in the NEPA process,” coupled with a similar explanation in the DOE October 2003 Federal Register notice — although important, did not fully allay our concerns.

However, it is obvious from our review of the draft EIS that factors other than CO₂ emissions from an electric generating project or group of such projects were the real basis of preparing this EIS. Absent such factors, an EA would more than likely have sufficed to address the subject of CO₂ emissions from one or more such projects in the global context if that was the only or prime environmental consequence. We consider this issue to be very important, because no one generating project or group of such projects could reasonably create a “significant” impact on global climate particularly since the sum of greenhouse gases, including CO₂ emitted from any such projects is minuscule compared with the enormous global atmospheric pool of such gases. As DOE and BLM know, 40 C.F.R. § 1508.27(a) provides that the significance of a federal action must be judged in context. In addition, CO₂ emitted from multiple sources worldwide mixes in the global atmosphere and is considered by scientific experts as one of the “well-mixed gases” Thus, the context for addressing CO₂ impacts from any given project or group of projects is the entire world. Viewed in that context, DOE/BLM must conclude that the CO₂ impacts from such projects are perforce insignificant, as is the case in the draft EIS.

Response 0023-001

The impact from CO₂ was one of the four issues that the U.S. District Court for the Southern District of California included for DOE’s attention in granting “...in part the plaintiff’s motion for summary judgment to the extent it asserts violations of NEPA and the APA arising from the EA [environmental assessment] and FONSI’s [Finding of No Significant Impact] inadequate analysis.” Therefore, an analysis of the impacts of CO₂ emissions was incorporated into the EIS.

As stated in Section 4.3.4.4.3 of the EIS, “Since there is no Federal regulatory guidance on CO₂ emissions, an analysis was conducted that focused on a comparison between global and U.S. emissions and the total emissions from the no action and proposed action alternatives....Because CO₂ is stable in the atmosphere and essentially uniformly mixed throughout the troposphere and stratosphere, climatic impact does not depend on the geographic location of sources. Therefore, an increase of CO₂ emissions at a specific source effectively alters CO₂ concentrations only to the extent that it contributes to the global total of fossil fuel burning that increases global CO₂ concentrations....the percentage increase in CO₂ emissions contributed by the TDM plant and the two LRPC export turbines under the proposed action is approximately 0.088% compared with total U.S. emissions from fossil fuel combustion and 0.023% compared with global emissions. ...The expected impacts to global climate change would be negligible. Comparative estimates are based on maximum CO₂ emissions from the respective turbines; actual operational emissions would be lower.”

Comment 0023-002

Chapter 4 of the draft EIS “discusses” the environmental consequences of the “four alternatives” set forth in Chapter 2, which are the two lines and the TDM and LRPC power plants, no action, alternative technologies, and mitigation measures. Section 4.3 of the chapter “analyzes the impacts” of those alternatives “on air quality in the United States” and states that such “impacts” may result from air emissions produced during construction and maintenance of the lines and from operation of the plants. One of the five “[m]ajor issues pertaining to air quality” listed in the section is the impacts “in the United States” of CO₂ emissions from the TDM and LRPC power plants, which were compared with both the total U.S. emissions from fossil fuel combustion and total global emissions from such combustion.

We are concerned that DOE would list CO₂ emissions as a “major” issue pertaining to air quality. As we already observed, while various energy projects are likely to produce CO₂ emissions in differing amounts annually, their emissions are insignificant in the global context of such emissions and other greenhouse gases. Indeed, the draft EIS states that such emissions from these plants are about “0.023% compared with global emissions” and that the “expected impacts to global climate change would be negligible” (p. 4-55). In fact, an energy project’s CO₂ emissions should remain relatively constant over time once it reaches full output, while global greenhouse gas emissions — particularly from developing countries like China, India, Brazil and Indonesia continue to rise substantially. Thus, greenhouse gas emissions from energy projects such as these, are quite insignificant from a global climate change perspective. In this regard, we point out that the definition of “climate change” as used in the Framework Convention on Climate Change (FCCC) “means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.” Since the FCCC is binding on the U.S. we must assume that when using that term, DOE/BLM do so in the context of that definition.

Response 0023-002

Please see Response 0023-001.

Comment 0023-003

B. Section 4.3.4.4.3 – “Global Climate Change and Carbon Dioxide Emissions” This section properly notes that “there is no Federal regulatory guidance on CO₂ emissions.” Indeed, just prior to DOE issuing its October 2003 notice of its intention to prepare an EIS, EPA decided on August 28, 2003, that CO₂ is not an air pollutant for any regulatory purpose under the Clean Air Act (CAA) and that EPA lacks congressional authority to regulate CO₂ emissions. That decision was published on September 8, 2003. 68 Fed. Reg 52922. As recognized by EPA, important to its decision is the 2001 report of the National Research Council titled “Climate Change Science: An Analysis of Some Key Questions.” Since the EPA decision relying on that report is the Executive Branch’s latest review on the record of global climate change science, DOE/BLM should, in addition to noting no federal regulatory guidance, give deference to the EPA decision in considering CO₂ emissions from these projects.

Relying on NEPA-related regulations of the Council on Environmental Quality (CEQ) the above-referenced court opinions were critical of the EA not comparing the alleged environmental impacts of the proposed project with alternatives, 40 C.F.R. § 1502.14. In light of the fact that no energy project will emit a meaningful amount of CO₂ compared with global emissions, there is no sound basis, despite the court comments, for saying that any one project or alternative is preferable to another as a result of lower (or no) CO₂ emissions. Accordingly, the draft EIS properly does not conclude that there are meaningful distinctions with the proposed project and alternatives based on CO₂ emissions.

Response 0023-003

Please see Response 0023-001.

Comment 0023-004

Finally, in certain circumstances the CEQ regulations require that EISs include a cumulative impact analysis. 40 §§ 1508.7 and 1508.8. Because of the very small quantity of CO₂ emissions produced by a particular project, such as the projects which are the subject of this EIS, a cumulative review of energy projects subject to some form of federal approval would not justify a finding of significant impact. The CO₂ emissions of all such projects would still be so small as to fall well below the significance threshold.

Response 0023-004

Please see Response 0023-001.

COMMENTOR 0024: Marshall Magruder**Comment 0024-001****Issue One — Connected Actions.**

The “connected actions” discussed in reference (e) were intended for the US and Mexican environmental survey and actions connected on this Imperial Mexicali project. The comments for other projects were not intended as indicated in 2.2.1 of Appendix B, Scoping Summary Report (page 2) “Connected Actions.”

An international transmission line requires simultaneous actions on both sides of a common border. The US environmental review process is covered by NEPA and associated Executive Orders and Department of Energy (DOE) policies.

The Mexican environmental review process is covered by the General Law of Ecological Balance and Environmental Protection of 1988 (abbreviated at LEEGEPA from its title in Spanish) and associated

Regulations and the Secretary of Environment and Natural Resources (SEMARNAT) policies.

The DEIS comment in S.4.2, “Issues outside the Scope of the EIS,” (page S-24) and 1.3.2, “Issues outside the Scope of the EIS” (page 1-11) indicates Executive Order 12114 was used to not consider impacts originating in Mexico. That appears to negate much of the value for this and similar border-oriented Environmental Reviews required by NEPA. In fact, it was non-compliance with air pollution controls in Mexico that resulted in the legal arguments that resulted in this EIS. There are definite border-crossing events and use of national processes on both sides of this border, as discussed below, could results achieving the results demanded by NEPA including a long-term CEQ (2000a) Cumulative Effects Analysis (CEA).

Several of the LEEGEPA Articles discuss the international transmission line requirements for a Mexican Environmental Impact Assessment (EIA) and specify that SEMARNAT policies will overview this processes, very similar to the policies in the United States for a Presidential permit.

Both of these environmental reviews, the US EIS and Mexican EIA, are required for this project. The elements of analysis are very similar, including, for example, Environmental Justice. Both require that the EIS or EIA be completed prior to project start.

Since the environment is continuous and crosses border lines at will, common understanding and agreements on actions on both sides, by both countries, will permit better and more knowledgeable decisions.

Even without, working together, using both environmental review products, side-by-side, will show or display information differences that should be reviewed, assessed and hidden risks evaluated as to their potential environmental impact. In the systems engineering discipline, most problems and highest risks occur at boundaries or interfaces between two systems. The boundary

evaluation, which some marketers try to describe as “seamless,” only exists after both sides reach knowledgeable decisions.

This Imperial-Mexicali transmission line system, which includes generation, transmission and fuel subsystems, with interfaces to air, land and water, that crosses the border, needs to assess all of these, as shown in Table 1 below:

Table 1 – Environmental Impacts for Each of the three subsystems including Cumulative Effects

Imperial Mexicali Subsystem	Interface or Boundary	Environmental Impact (Direct or Indirect)		Cumulative Effects this EIS should consider
		Mexico	United States	
Generation	Air	Direct	Direct	Yes
	Land	Direct	NA	Yes
	Water	Direct	Direct	Yes
Transmission (scope of this EIS)	Air	Direct	Indirect	Yes
	Land	Direct	Direct	Yes
	Water	NA	NA	NA
Fuel (natural gas and gasoline)	Air	Direct	Direct	Yes
	Land	Direct	Direct	Yes
	Water	Direct	Direct	Yes

This table shows potential interaction points between Mexican and US parts of this system, and its three major subsystems.

The Cumulative Effects Analysis (CEA) from the Council for Environmental Quality (CEQ) guide should use both the Mexican ESA and the US EIS. Looking at these, side by side, note the differences and then perform long-term “effects” caused by generation, transmission and fuel on the air, land and water, in particular the impacts of these on all living species, including humans, socioeconomic impacts, and the general area impacted by the Imperial Mexicali transmission system. The CEA methodological steps, in 5.1.2 (page 5-2) are proper, however, the definition in 5.3 “Reasonably Foreseeable Future Actions,” (page 5-4) pertains only to similar projects and their construction actions, not to population growth, which is significant, in this area.

This bi-national environmental review apparently has not been done as indicated in Appendix B.2.2.1. Assessments of Impacts in Mexico does not have to be accomplished by DOE and the Bureau of Land Management (BLM), but should be done, as prescribed by Mexican law, through SEMARNAT for International Transmission Systems. Minimal coordination is required; however, some agreements so that synchronization of schedules is necessary.

Using the result of this Mexican environmental review in the form of the required EIA, and Table I above, then all of the “interfaces” or boundaries can be systematically reviewed to validate and verify completeness of environmental impacts on both sides of the border.

The “reasonably foreseeable future actions” in 5.3 (page 5-4) are very narrowly defined. There were some actions, but in 5.3.7 “General Trends in the Imperial Valley — Mexicali Region” (page 5-12) shows that this is a fast growing area with the Imperial Valley growing 5% in the prior year (page 5-13) and Mexicali at an annual growth rate of 4.9%. As Table 2 shows, the population at this rate in 10 years will change as follows:

Table 2 –Showing Ten Years Population Growth in the region near this project

Year	Imperial Valley Population		Mexicali Population	
	Population	Annual Change	Population	Annual Change
2003	150,900	1,500 in Calexico	905,000	121,00 since 2000
2004	158,400	7,600	949,300	44,300
2005	166,400	8,000	995,800	46,500
2006	174,700	8,300	1,044,600	48,800
2007	183,400	8,700	1,095,800	51,200
2008	192,600	9,200	1,149,500	53,700
2009	202,200	9,600	1,205,900	55,400
2010	212,300	10,100	1,265,000	59,900
2012	222,900	10,600	1,327,000	61,000
2013	234,000	11,100	1,392,000	65,000
2014	245,800	11,800	1,460,000	68,000
Total Change in 10 years		94,900		555,000

This 10-year growth of 94,900 in the US is greatly overshadowed by the 555,000 on the Mexican side of the border. These 650,000 people in ten years will have significant impacts on demand for water, transportation, energy, food, housing, and work conditions. Assuming similar simple linear decade growths (650,000/decade), the regional growth will be about 1,300,000 in twenty years and an additional 3,200,000 people in 50-years, then some degree of that population on all infrastructures is critical to understand and for planning. This sizable community may not be exporting electricity; however, several new power plants will be necessary, and water demands stained (sic).

In 5.3.7.1.3, “Precipitation Trends In California” (page 5-13) the 2 to 3 inches of annual rainfall are what makes water critical and vital for life in this area. This population growth here will eventually reach a limit due to water, thus conservation of all water, including any used for exporting electricity out of the region must be considered.

The Imperial Mexicali Transmission system will probably have at least a fifty-year life, thus decisions today will impact this region fifty years from now, with water already being a critical regional resource.

Either a simple or sophisticated forecasting technique should be used for the basic parameters. These parameters include population growth (extrapolated from above), land use changes (agricultural to suburban to urban changes with all these people), technology impacts (efficiency, upgrade), air quality (based on the growth factors) water availability and quality (based on impacts of growth), transportation systems including roads and pipelines, fuel availability for generation, and other key growth factors.

Using either a single forecast or “low,” “expected,” and “high” forecasts to provide limits on these, then an expected environment can be predicted and assessed for the various Alternatives. The DEIS comments in Appendix B, paragraph 2.2.15 imply that a long say 50-years, Cumulative Effects Analysis is outside the scope of an EIS.

The referent CEQ (1997b) specifically looks for cumulative effects and ten-years is not adequate. Knowing precise projects, as indicated in DEIS paragraph S 4.2 (p S-24) is not essential for the

analysts discussed above, since long-term forecasts with “low” to “high” limits are used to show future trends.

These trends, when beyond 2 or 3 years, is all that can realistically be used; however, very important conclusions and beneficial decisions can be made.

The US Environmental Protection Agency (EPA), Region IX, San Diego Office, has been conducting several studies and active participation along the entire US-Mexican border, including Border Energy Studies in its Border XXI Program. The Region of Interest (ROI) for this project was recently expanded to 100 km on each side of the US-Mexican border. This EPA project has many participants, including all the leading Mexican governmental agencies involved with energy and the environment. None of the US EPA Border XXI documents are found as references.

This, leads to the following questions:

- 2.1 What is the status of the Mexican Environmental Impact Assessment for these transmission lines?
- 2.2 If a Mexican Environmental Impact Assessment has not been completed, should the US expect Mexican law to be observed, as they should expect our laws to be followed, thus presenting for and sharing independently derived, national data so that the bordering countries can consider cross-border environmental impacts? If not, then why hasn't the DOE discussed this issue?
- 2.3 Has the DOE met with SEMARNAT during this EIS process to discuss cross-boundary environmental impacts?
- 2.4 Will the DOE use the US Environmental Protection Agency Region IX “Border XXI” teams to provide information necessary to assess impacts inside of the EPA’s 100 km on either side of border study corridor?
- 2.5 Have at least population growth figures, such as in Table 2 above, been considered for 10, 25 and 50-year forecasts for this region?
- 2.6 What will the impact of an additional 3,200,000 people have on the water demand for this region? On the air quality (considering automobiles and industrial needs to support that population)? On the quality of water in the New River and Salton Sea (considering the demand by this population)?
- 2.7 Will the DOE consider the US State Department resources in Mexico to assist in obtaining Mexican government data to assist in the Cumulative Effects Analysis?
- 2.8 Has the Mexican Environmental Impact Assessment been considered in the determination of Environmental Impact and during Cumulative Effects Analysis, if not, why not?

- 2.9 Will the Mexican Environmental Impact Assessment be used and assessed for boundary differences, as discussed above?
- 2.10 During the period for the CEA, will any of the environmental impacts limit growth, such as water? For example, what is the maximum population that the expected water supplies can sustainability support and is that population used in the CEA?
- 2.11 Will the CEA be updated to reflect Mexican projections and US long-term ROI forecasts?

Response 0024-001

Regarding the question of performing analyses of impacts in Mexico or including in the EIS existing analyses of impacts in Mexico from the operations of the power plants, please see the response to Key Issue 1. Regarding the inclusion of the natural gas pipeline system in the EIS analyses, see Key Issue 7. Regarding the suggested 50-year forecast, NEPA does not require the analysis of future impacts that are not “reasonably foreseeable.” Such a time horizon is beyond this limit.

The following are responses to the numbered comments:

- 2.1 *The status of the Manifestación de Impacto Ambiental (MIA) for the power plants in Mexico is discussed in Appendix J of the EIS.*
- 2.2 *The analyses in the EIS assume that Mexico environmental laws and permits are being observed.*
- 2.3 *DOE did not meet with the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT).*
- 2.4 *DOE did not use EPA Region IX teams to provide information for the impacts analysis.*
- 2.5 *Population growth projections beyond the 10-year time line were considered too speculative to provide a meaningful basis for impact analysis.*
- 2.6 *Increased population in Mexicali will increase water demand (and wastewater discharge) in the region. The source of the water is undetermined at this time. Discharges to the wastewater treatment facilities in Mexicali, some of which discharge to the New River, would also be expected to increase in the next 10 years. A discussion on general water demand trends in Mexico (Section 5.3.7.2.2) has been added to the Cumulative Impacts section. Increased industrial development, automobile emissions, and energy demand in Mexico will also likely have a negative cumulative impact on air quality in the region (see new Section 5.4.3.3).*
- 2.7 *DOE has not consulted with U.S. State Department resources in Mexico.*

2.8 *The EIS only considers impacts in the United States.*

2.9 *The EIS only considers impacts in the United States.*

2.10 *The cumulative impacts assessment did not consider the impacts of water availability on the population growth in either the United States or Mexico since neither region obtains its water from the New River or Salton Sea (the two water bodies within the Salton Sea watershed of most concern in this EIS). However, the impact of the general trend of increasing population in the Mexicali region on the New River was considered in a qualitative way (see Section 5.3.7.2.2).*

2.11 *The cumulative impacts analysis will not be updated to include Mexico projections, and agencies do not expect to update the long-term forecasts in any of the trends mentioned (e.g., population, precipitation, industry development).*

Comment 0024-002

Issue Two — Air Quality Issues

The comments in reference (e) recommending monitoring and pollution control equipment were not presented in the DEIS. With the abundance of pollutants from this system, a real-time monitoring system, that would be cross-border oriented, is a minimum mitigation measure. Each kind of emission needs to be continuously monitored at the appropriate site(s) so that real time maps can be presented. It should be noted that in Appendix B, in 2.2.4, “Air Quality” there was not EIS Analysis under the heading “Air Analysis Parameters” thus the DEIS response from DOE and BLM appears incomplete.

Monitored data over time will validate or negate the various computer model outputs used in the DEIS. In fact, the models could be rerun based on a web of air monitoring sites, as a few sites are inadequate to understand the situation. New wireless techniques could be used to network this to a control room, with a few situation displays, with software that alerts operators whenever a national standard (US or Mexican) is being exceeded. SCADA or other networks should be used to communicate with the impacting power plant(s) to make the appropriate operational changes. These “limits” should be included in the Final EIS (FEIS) with specified monitoring requirements necessary to ensure public health and safety.

Figures 3.3-12, “Salton Sea Air Basin Monitoring Stations ARB Map” and 3.3-13, “Mexico Monitoring Stations ARB Maps” (pages 3-54 and 3-55) show existent air quality monitoring stations. The closest two U.S. air quality monitoring sites are 10 and 12 miles to the north and east of the transmission line (page 3-53). The two Mexican air quality monitoring sites are 8 and 11 miles to the east of the transmission line system. There are no sites to the west in either country; however, the prevailing wind shown in Figures 3.3-6, 3.3-7, and 3.3-11 show significant winds from the southwest. This means there will not be downwind monitoring capabilities from the generation plants. Additional analysis is required; however, adequate air quality monitoring appears to include additional stations.

There are mitigation measures in Table S-1 (page S-49) to improve air quality monitoring stations, data collection, display, analysis and consequence management necessary to ensure that all air emitters involved with this project, including those in Mexico are known and required to remain within the appropriate limits.

Assuming that an adequate bi-national air quality monitoring and control system is included as a mitigation measure, data in Table H-4, “Maximum Ground Level Concentrations for a Single Turbine at the TDM and LRPC Power Plants” (page H-9) for hourly and annual impacts by pollutant to be considered as acceptable monitoring thresholds.

In Table H-6, “Estimated Risk for each Power Plant” (page H-12), for the LRPC (four turbine) High-End entry, it shows that the “Cancer Risk” is 200 per million while the Significance threshold is 1 per million. This shows that under these conditions there is an above threshold cancer risk with the LRPC (four turbine) requiring management actions necessary to lower risk. These are not included herein.

Since multiple agencies are involved in Air Quality monitoring, including US, California, and Mexican, the mitigation plan must provide an agreement how these will coordinate and share air quality information with the utilities and associated control centers.

The leads to the following questions:

- 2.1 Will the present air quality-monitoring stations be augmented to account for the significant southwesterly wind flows that cannot be monitored by the present stations?
- 2.2 Do the present air quality monitoring stations provide data in near real time?
- 2.3 What air pollutants does each station monitor and at what frequency?
- 2.4 Are the present air quality stations adequate to effectively monitor these plants in real time?
- 2.5 Where should additional stations, with what capabilities, be sited to give a total, real time, and air quality picture and where should the air quality station be located?
- 2.6 Is there a cross-border air quality agreement to share such data?
- 2.7 Will the mitigation measures require the US companies to fund, construct, site and continuously monitor a network of air quality monitoring stations at one location to provide a situational awareness picture?
- 2.8 Will the mitigation measure include and specify authorization for the air quality situational awareness station to order power plants to change operational procedures and ordering pollution equipment operations, including ordering plant shutdown, when critical limits are exceeded? If there is not such a mitigation plan, how can there be any assurance that air quality is within standards?

- 2.9 What are the critical parameters from air quality monitoring that should “trigger” alerts or require plant shutdown?
- 2.10 To whom will the applicants report compliance with the primary emissions, secondary air pollutants, and fugitive dust emissions mitigation measures specified in the summary Table S-1 (page S-49) and elsewhere in the DEIS?
- 2.11 What are the management or mitigation actions necessary to reduce the cancer risk for the LRPC (four turbine) facility, as indicated in Table H-6?

Response 0024-002

Regarding including Mexico in the EIS analysis, please see the response to Key Issue 1. The commentor’s suggestion of a binational air monitoring network is noted but is beyond the scope of the EIS. A specific Mitigation Action Plan may be issued after the FEIS is completed. Therefore, it is not currently possible to answer most of the specific questions in the comment.

Comment 0024-003**Issue Three — Water Use/Quality Issues**

The DEIS does not discuss assured water supply such as an “assured 100-year supply.” This is required in Arizona and a similar requirement must exist in California. Thus, sustainability of water both for use and in quality is essential elements of the water elements impacted by this system.

In the DEIS, Figure 3.2-5, “New River in Mexicali, Mexico” (page 3-13) shows a large number of actual or potential water pollutants along this river, including hog farm discharge, steel recycling plant, and slaughterhouse discharges. Further, the DEIS states in 3.2.1.1.2, “Water Quality” (page 3-2) based on a 1996 report that ...

“Contaminants of concern detected in water samples from the New River at the U.S.-Mexican border that exceeded comparison values set by the Agency for Toxic Substances and Disease Registry include pathogens (e.g., fecal coliform bacterial, fecal streptococci, E. coli bacteria, and enterococci bacteria), metals (e.g., lead arsenic, cadmium, thallium, antimony, boron and manganese), pesticides (e.g., aldrin, chlordane, dichlorodiphenyldichloroethane [DDD], 4,4DDD, dichlorodiphenyldichloroethylene [DDE], dichlorodiphenyltrichloroethylene [DDT], and heptachlor epoxide), and volatile organic compounds (VOC) (e.g., tetrachloroethylene [TCE], methylene chloride, and n-nitro diphenylamine) (DNHS 1996)”

In addition, Table 5.3-2, “TMDL pollutants and Time Lines for the New River and the Salton Sea (page 5-10) provides another list of pollutants in the New River and eventually into the Salton Sea.

The New River is not healthy water. This river flows into the United States and near population centers. Recently, in Idaho, the EPA filed a suit against a Canadian mining company for polluting a river that flowed into the U.S. from Canada. Without frequent water measurements all along the New River, effective water safety and health care cannot be monitored or even acted upon. We recently have 25,000,000 gallons of very contaminated water flow from Sonora into Arizona due to a plugged drain (a dead dog) that hazarded thousands in Nogales, Arizona. Unfortunately, the Mexican water gages are not remotely monitored and water sampled by the U.S. in Mexico was only weekly. This is a major issue here and with the International Water Boundary Commission (IBWC). Our congressman Grijalva made a significant complaint to the IBWC because lack of real time monitoring resulted in this flow going on for 48 hours before the Mexican authorities notified the U.S. side of the border. Real time monitoring on both sides of the border is the best solution.

The DEIS carefully notes the changes at two gages, at each end of the US portion of the New River, based on expected “mitigation” proposed by the applicants. There appear to be no equivalent water gages in Mexico. In the Ambos Nogales area, there a US monitored water gages installed on the Mexican side of the Santa Cruz River and used by the Arizona Department of Water Resources for water management in Arizona.

The use of “wet-dry” cooling must not discharge treated water into the already troubled New River, thus the cooling system must recycle all its water, such as accomplished at the C.F.E. Aqua Prieta, Sonora plant.

There supporting rationale for not using “dry” cooling when compared to the “wet-dry cooling” is system discussed on page 2-36. Due to the long-term importance of water for communities on both side of the border, any application of “wet” cooling decreases water resources. Wet-dry cooling should not be an Alternative as the water supply is more valuable that electricity, as only dry cooling will have minimal cumulative effects. The decrease in efficiency on hot days is when others require water more than cooler days, which lowers the value to this view.

This leads to the following questions:

- 3.1 Are two water gages enough to monitor the New River or should additional gages be installed in Mexico? .
- 3.2 How often will the water be sampled for pollutants and where?
- 3.3 Will this provide adequate indicators and warning time, based on known pollutant levels in the New River, for people to be notified and sluice gated be closed to prevent ruining valuable crops?
- 3.4 How much will each of the contaminants be removed by the water treatment processes associated with generation?
- 3.5 Will all treated water be prevented from entering the water table or the New River?

- 3.6 What would be the long-term impacts of the water chemicals added to the electrical plant cooling water if it entered the New River and Salton Sea?
- 3.7 As clean and safe water is an objective for both sides of the border, are the water treatment plants in the US and in Mexico capable of handling and cleaning all of the known pollutants in this river so that the effluent is not hazardous to health? Is there anyway the power plants could contribute to cleaner water than is now present, such as operating sizable distillation plants (at least 100,000 gallons/hour) as a mitigation measure to remove salt and other impurities as an air cooling measure?
- 3.8 What are the specific details in terms of a design trade study, using objective, site-specific numeric data (such as specification sheets) instead of the existing subjective statements on page 2-36 needs to be completed before the DOE and BLM consider the “wet-dry” cooling approach?

Response 0024-003

A large number of issues are raised in this multipart comment. Responses are as follows:

- Arizona’s Assured Water Supply program requires all new subdivisions in designated areas to demonstrate that sufficient water supplies are available for 100 years as a measure to assure long-term water supplies for residential development. In the southern California region, a similar objective is achieved through a program managed by a partnership among various agencies, including the Metropolitan Water District of Southern California, the Santa Ana Watershed Project Authority, and the Southern California Water Dialogue. These agencies work collaboratively on a variety of programs to produce reliable drinking water supplies that meet or exceed state and federal standards. Programs include groundwater management, urban water conservation and recycling, water transfers, desalinization, and treatment technologies research (e.g., ultraviolet light disinfection).*
- Because the New River and the Salton Sea are not used to supply drinking water, sustainability of their water quantity is not a water supply concern. The quantity and quality of water impacted by operation of the power plants are discussed in Section 4.2.*
- Effluent from the power plants ultimately enters the New River close to the location of the Calxico monitoring station. The U.S. Geological Survey (USGS) operates and maintains this gage and the corresponding gage at Westmorland. Changes in flow and water quality at these gages as a result of plant operations are discussed in Section 4.2. The USGS performs sampling at the Calxico and Westmorland gages. There are no known changes in sampling frequency or locations.*

- *The agencies have revised and expanded the discussion of wet-dry cooling and zero-discharge cooling in Section 2.3 of the EIS. Additional details on the wet-dry scenario are discussed in the response to Key Issue 6.*
- *Water monitoring in Mexico is outside the jurisdictions of the U.S. agencies preparing this EIS. However, because discharge from the plants ultimately enters the New River near the location of the Calexico gage, additional gages in Mexico would not aid in monitoring project impacts. Power plant operations would not affect New River water quality in a manner that could necessitate warnings to the public or dosing of sluice gates.*
- *Discharges from the power plants decrease concentrations of all of the contaminants of concern except TDS and selenium. Other contaminants in the New River (e.g., pesticides and volatile organics) have no additional input from the power plants.*
- *EIS Section 4.2.4 presents tables listing the quantities of contaminants of concern for the power plants that would be either reduced or increased by power plant operations.*
- *All water released from the power plants would enter the New River after moving through a system of channels. Because the New River is a gaining stream (i.e., it gains flow as it moves downstream due to additional point sources and diffuse groundwater flow), little water would enter the groundwater system.*
- *Almost all of the chemicals (e.g., lime) added to the water during treatment for the power plants are removed by precipitation and hauled off as sludge. No long-term impacts are anticipated.*
- *As discussed in the EIS, operation of the power plants would remove large quantities of objectionable material from water withdrawn from either the Zaragoza Oxidation Lagoons or their inlet. Concentrations of TDS and selenium would increase because of water consumption. The EIS has been revised to include additional discussion of TDS removal and the potential impacts of a zero-liquid discharge system (see Appendix K of the FEIS).*

Comment 0024-004**Issue Four – Mitigation**

The mitigation measures included in Table S-1 are rather weak in ensuring a safe, healthy and sustainable environment for people and living things on both sides of the border.

This leads to the following questions:

- 4.1 Can additional air quality monitoring stations be included so that the west and northwest of the transmission line and power plants be adequately monitored?
- 4.2 Can the US and Mexican air quality monitoring stations be networked so that real time air quality monitoring can be assessed on both sides of the border?
- 4.3 Can a co-generation distillation plant, of at least 100,000 gallons per hour, be included with the generators to remove harmful pollutants and salt from the New River? Could this be increased to 1,000,000 gallons of potable water per hour?
- 4.4 Can only “dry” coolers (and any cogeneration options) be installed with the generators?
- 4.5 Can air quality monitors be installed, as a system, to monitor all air pollutants to ensure continual compliance with air quality standards?
- 4.6 Can additional water monitoring stations be installed, including ones in Mexico, along the New River to continuously determine the safety of water?
- 4.7 Does the mitigation plans including bi-national sharing of water and air quality data, including real time monitoring in both countries with both countries receiving the same data?
- 4.8 How will the applicant’s compliance with the mitigation measure be monitored, reported and tracked and what will be the consequences when not complying?
- 4.9 What mitigation measures are included to account for the loss of one or more towers, if destroyed by terrorist or a truck hits one and knocks it down?

Response 0024-004

The details of any mitigation program would be specified in a Mitigation Action Plan issued after completion of the EIS. Regarding the monitoring of plant operations in connection with mitigation alternatives, please see the response to Key Issue 3. With respect to including a cogeneration distillation plant in the options studied, such proposals would be considered during the scoping of alternatives. This proposal, it appears, would not have been considered a reasonable option warranting analysis in the EIS had it been raised in scoping. Regarding questions 4.1, 4.2, and 4.5, please see Response 0024-002, which refers also to Key Issue 1. Regarding questions 4.4 and 4.6, please see the response to Comment 0024-003. Regarding the loss of transmission line towers, Section 1.3.1.2, “Issues outside the Scope of the EIS,” explains that planning for emergency outages would be handled by local public safety officials. DOE will perform an electric reliability study outside the NEPA process to assess the impacts of a sudden loss of power from downed transmission lines.

Comment 0024-005

Issue Five - Need for an Environmental Impact Statement.

A completely compliant EIS will include a bi-national Cumulative Effects Analysis, which DOE has stated is not required. Under Issue 1 above, a suggested approach was suggested.

Response 0024-005

Regarding analyzing impacts in Mexico, please see the response to Key Issue 1 in Section 3 of this volume.

Comment 0024-006

Issue Six - Other Permitting Requirements

The transmission line will cross the Pinto Wash, Figure 3.2-21 “FEMA 100-Year Floodplain of Pinto Wash” (page 3-33). In Table 9-1, “Federal Environmental Statutes, Regulations and Order” (page 9-3), indicates the Floodplain Management (EO 11988) reporting is required.

This leads to the following questions:

- 6.1 Has this transmission system been determined by the US Army Corps of Engineers to be “critical facility” and if so, then will the floodplain requirements be changed to “500-year” instead of the “100-year” requirements in section 3.2?
- 6.2 Will a Section 404 report be required?
- 6.3 Will a biological assessment and biological opinion be required for this project for the 19 species listed in 3.4.4, “Special Status Species”?

Response 0024-006

The transmission system crossing the Pinto Wash has not been determined by the U.S. Army Corps of Engineers to be a critical facility. A Section 404 report will not be required since the project affects less than an acre of jurisdictional waters; instead, it is covered by Nationwide Permit No. 12.

An analysis of potential impacts to listed species is required only for Federal-listed threatened and endangered species that a project may affect. Not all of the species discussed in Section 3.4.4 have this status. The agencies (in informal consultation with the U.S. Fish and Wildlife Service (USFWS)) performed an analysis of potential impacts to all special status species; the findings are presented in Section 4.4.7. No need for a separate biological assessment has been identified.

Comment 0024-007

Issue Seven — Emergency Response Measures.

The risk of sabotage to these transmission lines is real and a possible threat to the distant users with minimal local personnel. In 1.3.2, “Issues outside the Scope of the EIS (page 1-11) and in Appendix B, 2.2.9, “Homeland Security” (page 7), the EIS response was the “homeland security issues is beyond the scope of the EIS.” Specific response plans, which are probably company private, are not necessary for the responses to the below questions (the had actor, a terrorist or truck isn’t the key concern). The last question is to confirm that the Border Patrol has reviewed this project, and not their response.

This leads to the following questions:

- 7.1 What are the impacts to the users of each of these two transmission line systems if one or more towers was disabled (knocked down) by a terrorist or even a truck hitting it?
- 7.2 How many days would it take to replace a down tower and what alternatives would exist for such a situation?
- 7.3 Would the two applicant’s responses be different if such an incident occurred on either side of the border, and if so, what impacts [will] that have on restoration time?
- 7.4 Has the U.S. Border Patrol been involved in the review of the DEIS?

Response 0024-007

Please see the response to Comment 0024-004.

Comment 0024-008

Issue Eight — System Capabilities.

This issue appears to be closed, as all transmission lines appear to be initially constructed as double-circuits and a second environmental review will not be necessary in future years.

Response 0024-008

Comment noted.

Comment 0024-009

Issue Nine —National Gas and Transmission Line Impacts.

In S.4.2, “Issues outside the Scope of the EIS” (page S-24), in 1.3.2, “Issues Outside the Scope of the EIS” (page 1-12) and in Appendix B 2.2.1, “National Environmental Policy Act (NEPA) Process/Decision-Making,” (page 3) all state that the nearest natural gasline is more than

50 miles away. The concern was with natural gaslines in Mexico and the criteria of the Gas Technology Institute (GTI) Report 105 concerning minimum separate between electrical and natural gas transmission lines.

The Federal Director of the Office of Pipeline Safety told me that the National Academy of Science was assessing the complex soil resistance (ohms) or conductivity, pipe corrosion, various active and passive cathodic protection schemes, voltage and current at various distances above ground, transmission tower earth-grounding in various soils (desert or dry environments have poorest grounding), and several additional factors to prevent unwanted interactions between gaslines and electrical transmission line systems.

The interactive impacts of passive or active cathodic protection systems, electrostatic discharges and electromagnetic effects should not cause premature failure of the gasline, sparks from vehicles passing under the lines, or induced current traveling through the gasline to unsuspecting users, such as when one turns on a stove to receive a serious shock or to cause an air-natural gas mixture that a spark sets off a significant fuel-explosive. The answer is complex.

The Baja Norte Pipeline and two 230 kV lines appear to run in parallel, where most long-term corrosion damage to the pipelines may occur.

This leads to the following questions:

- 9.1 Are all the transmission lines at the appropriate safe distance from natural gasline, including those in Mexico, so that various interactions are insignificant?

Response 0024-009

Regarding the issue of line siting in Mexico, please see the response to Key Issue 1. Transmission lines in the United States would be a safe distance from the natural gas lines.

**COMMENTOR 0025: Kenneth M. Smokoska, Air Quality Committee Chair
Sierra Club, San Diego Chapter**

Comment 0025-001

We find the draft has significant deficiencies with regard to the alternatives proposed. The air quality in Imperial County is non-compliant with the Clean Air Act provisions. We feel the cumulative effects of power plants and transmission lines in Imperial County cannot be offset. How do you put a value on the anticipated deaths due to the worsening air quality if these power plants come online? They should never have been built without a proper environmental impact report, including CEQA provisions and cumulative impacts of the power plants in the region, LNG importation and expansion of transmission lines.

Response 0025-001

The power plants in Mexico were permitted by Mexico authorities after the required environmental studies were performed. Appendix J has been added to the EIS, which summarizes the permitting of the power plants in Mexico.

The purpose of the current NEPA review is to objectively examine issues like those alluded to in the comment, including alternatives, health, cumulative impacts (encompassing power plants in the region of influence), etc. These topic areas can be found within the EIS.

Comment 0025-002

We propose an economic study be included to compare a solar manufacturing plant versus a natural gas power plant. This study to include air quality, cost benefit analysis, economic impacts and totals life cycle evaluation of solar generated. If the citizens of Imperial County have to endure electricity generation in their county, then a proper economic analysis needs to be performed.

Response 0025-002

The scope of the EIS was determined during the public scoping period, which closed on December 1, 2003. Public scoping is summarized in Section 1.3 of the EIS. Alternative power generation was not identified for analysis in the EIS. This is a reasonable limitation of the scope of the study since power generation is not the proposed action. Rather the power plants in Mexico are included as connected actions to the construction of the electrical transmission lines. Thus, the EIS examines a set of reasonable options for the existing power plants.

Comment 0025-003

...we find the following incorrect analysis of basic sciences performed by the consultants:

1. Improper AQ analysis by DOE leads DOE to conclusion that PM₁₀ and NO_x emission offsets are not necessary for the power plant emissions.
2. Proper AQ analysis confirms that emission offsets is necessary.

Response 0025-003

Regarding the air quality analysis in the EIS, please see the response to Issue 2.

Comment 0025-004

...we find the following incorrect analysis of basic sciences performed by the consultants:

3. Appropriate AQ mitigation: A total 733 tons of PM₁₀ emissions and approximately 400 tons of NO_x in Imperial County and Mexicali must be offset to account for PM₁₀ and NO_x emissions from the InterGen (LRPC) and Sempra plants.

Response 0025-004

The commentor's preference for mitigation of air emissions is noted. Regarding the appropriateness of the air quality analysis in the EIS with respect to mitigation, please see the response to Key Issue 2.

Comment 0025-005

...we find the following incorrect analysis of basic sciences performed by the consultants:

4. Diversion of low salinity water destined for New River to LRPC and TDM plants results in evaporation of nearly 3.5 billion gallons per year of water (in power plant cooling towers) that would otherwise reduce salinity of New River, and the discharge of nearly 1 billion gallons of high salinity wastewater into the New River.

5. Loss of this flow in the New River will expose nearly 100 additional acres of Salton Sea shoreline and result in up to 100 tons/yr of PM₁₀ emissions from the exposed shoreline.

Response 0025-005

Regarding water use by the power plants, the results of the calculations presented in the DEIS are correct. There is not sufficient information provided in the comment to determine what part of the water use analysis is in question.

Section 4.3.4.4.4 describes a maximum theoretical exposure of Salton Sea shoreline, based on the assumption that the power plants in Mexico operate at full capacity for 365 days a year and represent a considerable overestimate of any actual loss. As with the previous point, it is not clear what part of the analysis is in question.

Comment 0025-006

...we find the following incorrect analysis of basic sciences performed by the consultants:

6. The New River exceeds the 4,000 mg/l TDS ceiling established for Colorado River Basin rivers near its terminus prior to entering the Salton Sea. High salinity wastewater discharges from LRPC and TDM plants, ranging from 4,400 to 4,800 mg/l, exacerbate New River exceedances of the 4,000 mg/l TDS ceiling.

Response 0025-006

Regarding the impacts of the proposed projects on the 4,000-mg/L TDS water quality objective, please see the response to Key Issue 15.

Comment 0025-007

...we find the following incorrect analysis of basic sciences performed by the consultants:

7. Appropriate water quality mitigation: Retrofit a dry cooling system to the existing wet cooling system at each plant. Design the parallel “wet-dry” cooling system to reduce water consumption by 90 percent or more over the current wet cooling system. Add a zero liquid discharge system to treat the remaining wastewater to eliminate high salinity wastewater discharge to the New River.

Response 0025-007

Parallel wet-dry cooling systems and zero-liquid discharge technologies are analyzed in Section 2.3.1 of the FEIS.

Comment 0025-008

...we find the following incorrect analysis of basic sciences performed by the consultants:

8. Add explicit environmental conditions to the Presidential Permits for LRPC and TDM

Suggested permit conditions are:

- All PM₁₀ and NO_x emissions must be completely offset within two years of the issuance of an approved Presidential Permit;
- The DOE will enjoin use of the transmission line(s) at any time the plants are in violation of the air emission limits specified on p. G-3 and p. G-4 of the DEIS;
- Air monitoring data will routinely/continuously be provided to Imperial County APCD authorities by LRPC and TDM;
- Averaging time for all air pollutants is 3 hours;
- Consumptive water use is limited to 717 acre-ft/yr at LRPC and 350 acre-ft/yr at TDM;
- Data from an approved flow monitor must be routinely provided to the Regional Board to verify water consumption;
- Discharge of wastewater to the New River that has not been treated for salinity removal is prohibited.

Response 0025-008

Regarding the inclusion of mitigation conditions in the Presidential permits, please see the response to Key Issue 3.

Comment 0025-009

We would like to work with the Department of Energy to perform an economic study of the benefits of solar generation of electricity versus natural gas generated electricity. We feel serious consideration should be given for denying an operating permit. If a permit is issued significant offsets should be provided to Imperial County with community input as to how this should be accomplished. This will help lead to reducing our dependence on foreign oil and provide clean renewable energy for generations to come.

Response 0025-009

With regard to a study of solar generation as an alternative to the natural-gas-fired power plants analyzed in the EIS, because the power plants are analyzed as connected actions rather than the action itself (i.e., construction of transmission lines), alternatives affecting power plants and the generation of power are confined to a set of reasonable options for the existing plants. Alternative power sources are considered beyond the scope of the EIS. Please see also the response to Comment 0025-002.

COMMENTOR 0026: Mark Doyle

Comment 0026-001

First, I am outraged that this project was approved and constructed before a DEIS was issued, much less reviewed. Such a backwards process is not permissible. Any major projects must be carefully reviewed for environmental impacts prior to construction. The local desert ecology is extremely sensitive. If those charged with its protection fail in their duties, none of it will survive. Additionally, this region is rich in Native American cultural sites, which also require protection from major.

Response 0026-001

A NEPA environmental assessment (EA) of the proposed transmission lines was prepared and approved, and a FONSI made prior to construction of the transmission lines (DOE 2001). The EA and FONSI were challenged in court prior to construction. After the transmission lines were built and had started operations, the court ruled that the EA was inadequate in some aspects and ordered further analysis, resulting in a decision by DOE to perform an EIS (refer to Section 1.1.1). The court allowed the lines to continue to operate while the analysis was being completed. Desert ecology and cultural resources are described in Sections 3.4 and 3.5, respectively, and the impacts of the projects in these resources are presented in Sections 4.4 and 4.5, respectively.

Comment 0026-002

Second, I believe that fact that the transmission lines have already been built does not preclude the implementation of a number of measures to reduce their impact. I strenuously urge the following:

1. Upgrade emission controls: The proximity to the United States of the power generation sources connected to these lines means that the emission from these sources will affect the air quality in adjacent US areas. The obvious target of the output of these plants is the Southern California market. Taken together, these make the project equivalent to any new US power plant project. In my view this requires that the strictest current emission standards be applied. I call on you to make the license to operate these transmission lines conditional on the installation and maintenance of the equipment meeting highest emission standards listed in the DEIS.

Response 0026-002

Section 4.3 of the EIS discusses the impacts on air. Regarding conditioning the Presidential permits, please see the response to Key Issue 3.

Comment 0026-003

... I believe that fact that the transmission lines have already been built does not preclude the implementation of a number of measures to reduce their impact. I strenuously urge the following:...

2. Cooling technology: I urge the use of dry or wet-dry cooling technology to reduce impacts on the stressed water supply in the area. According to experts in the field, the efficiency penalty for using these cooling technologies is a fraction of that stated in the DEIS.

Response 0026-003

Regarding the efficiency penalty for dry cooling, the cited 10 to 15% penalty on the steam cycle is an established industry value at high ambient temperatures, which exist in the study area. Overall plant efficiency would be less affected, since the steam turbine produces roughly one-third of total plant output. Thus, the penalty would be 3 to 5% overall, as now clarified in Section 2.3.2 of the FEIS.

Comment 0026-004

...I believe that fact that the transmission lines have already been built does not preclude the implementation of a number of measures to reduce their impact. I strenuously urge the following:...

3. FTHL management plan: The Flat Horned Lizard, a soon to be listed endangered species, is native to the region. I call on DOE to require mitigation measures commiserate (sic) with the

sensitivity of this rare specie, and to encourage BLM to develop a true management plan to deal with this problem.

Response 0026-004

The USFWS withdrew a proposed rule to list the species as threatened in early 2003 (see Section 3.4.4.6 of the EIS). Mitigation measures for the flat-tailed horned lizard are identified in Section 2.2.1.4.1 of the EIS and are fully consistent with mitigation measures identified in the Flat-Tailed Horned Lizard Rangewide Management Strategy, 2003 Revision (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003).

Preparation of a Mitigation Action Plan specifically for the flat-tailed horned lizard is beyond the scope of the NEPA process for this EIS.

COMMENTOR 0027: Carole Levenson

Comment 0027-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico.

The draft EIS prepared by DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0027-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0028: Martin Pleasant

Comment 0028-001

I believe it is important that energy producers outside the United States meet our environmental standards. Please make sure the environment is fully protected.

Response 0028-001

The power plants in Mexico are permitted and regulated under Mexico authority. The EIS evaluates the impacts in the United States of the power plants as they are currently operated. Please see the response to Key Issue 1.

COMMENTOR 0029: Campaign letter

Comment 0029-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexican border already suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach a sufficient level of significance to require mitigation. The DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of the U.S. and Mexican citizens, nor ahead of the need to protect the New River, an

important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0029-001

Comment noted. Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0030: Campaign letter

Comment 0030-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to make additional profits in the U.S. at the expense of the public health and the environment. The majority of California residents, along with Greenpeace, are demanding clean renewable resources, but multinational corporations are pressuring both States to invest in foreign liquid natural gas that could fuel an explosion of dirty power plants on the border. Instead, the U.S. and Mexican governments should be working to bring clean renewable energy to Mexico and the California.

The residents of the California and Mexico border deserve clean renewable energy sources. These populations suffer from poor air quality and scarcity of water. Imperial County, California has by far the highest childhood asthma rates in the State. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County. The county is a Federal non-attainment area for PM₁₀ and ozone. Air monitoring data available for Mexicali show the city's air quality is at least as bad as conditions in Imperial County. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and PM₁₀ emissions from InterGen's La Rosita Power Complex (LRPC) and Sempra's Termoelectrica de Mexicali (TDM), threatens the health and well being of communities on both sides of the border. Adequate air and water quality mitigation measures must be included in the final EIS to effectively address the air and water quality impacts caused by the LRPC and TDM power plants.

The recent scandal involving InterGen's misrepresentation of its environmental practices indicates that Presidential Permits should not be granted. InterGen displayed its complete disregard for the pollution control commitments made to the DOE by failing to install advanced smog controls on one of its two export units at the time of commercial startup (June 2003). When local communities discovered InterGen's failure, the result was a two month forced shutdown of the unit, which ended only when the appropriate pollution control system was installed. The uncontrolled unit generated hundreds of tons of NO_x beyond what the DOE estimated when initially granting a Presidential Permit that allowed InterGen to transmit power to the U.S. While the situation has now been corrected, the damages done while the plant was operating without meeting environmental standards are reprehensible. The lack of accountability in the current Presidential Permit process must be addressed and corrected.

Response 0030-001

Regarding the power plants in Mexico that would use the proposed transmission lines, these plants are permitted and regulated under Mexico authority. Please see the response to Key Issue 1. These plants are fueled by an existing natural gas pipeline and are regarded as relatively clean providers of power, not as “dirty power plants.” All export gas turbines employ low-NO_x burners and SCR controls for NO_x emissions. The TDM turbines also have catalytic oxidizers to further control CO and VOC.

The high incidence of asthma in the region noted in the comment is acknowledged in Section 4.11 of the EIS. The maximum potential increase in asthma hospitalizations in Imperial County resulting from PM₁₀ emissions from the power plants is estimated to be two to three cases per year, as now noted in Section 4.11.4.2 of the FEIS. Actual increases would be a fraction of this. Please see the response to Key Issue 13.

Regarding the analysis of mitigation measures, Section 2.4.1 of the FEIS includes additional information on water mitigation opportunities in Imperial County, consistent with what is already being practiced or recommended by local water authorities. In addition, Section 2.4.2 now includes additional information on costs of identified air mitigation opportunities.

Regarding accountability in the current Presidential permit process, this EIS has been prepared in part to increase the opportunities for public participation in the decision process, as noted in Section 1.1.1 of the EIS.

Comment 0030-002

The two power projects should be retrofitted to parallel wet-dry cooling systems. This would greatly reduce the amount of water used by the plants while maintaining full power generating capacity on hot days. The parallel cooling option would also restore most of the river's flow to the Salton Sea and minimize PM₁₀ emissions from exposed shoreline. The New River that is affected by this salinity is crucial because it flows northward from Mexicali to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County. The Salton Sea suffers from ever increasing salinity and decreased volume, which exposes the shoreline to wind erosion. These harms jeopardize its status as one of the most important migratory bird habitats in the West.

The salinity problem is exacerbated by the plants' practice of dumping high salinity wastewater directly into the New River. A prohibition on the dumping of high salinity wastewater into the New River would effectively address the dangerous changes in the salinity levels of the New River and the Salton Sea.

Response 0030-002

Regarding the impacts of plant wastewater discharges on the salinity of the New River, a revised analysis of the impacts of the installation of wet-dry cooling as compared to the proposed action appears in Section 4.2.5.2 of the FEIS. As noted in Section 4.2.4,

operation of the two power plants with wet cooling under the proposed action would increase the salinity of the Salton Sea by only 0.14% (Table 4.2-7) and reduce its surface area by 0.04% or 97 acres (39 ha) (Table 4.2.6). These changes would not impact bird populations at the Salton Sea, as noted in Section 4.4.3.4 of the EIS, while reduced phosphorus loads from water treatment at the power plants would have a slight beneficial effect.

Comment 0030-003

Secretary Abraham, as the head of the Department of Energy, you should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River. I urge you to craft adequate air and water quality mitigation measures in the final EIS that effectively address the air and water quality impacts caused by the power plants. I also urge you to work together with the Mexican and California governments to bring clean renewable energy solutions to the region. Renewable energy like wind and solar will solve the air and water problems that plague the area and help solve our looming global warming crisis.

Response 0030-003

Regarding mitigation measures discussed in the FEIS, please see the response to Comment 0030-001.

COMMENTOR 0031: Kent Wooldridge

Comment 0031-001

I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation. It is clearly pointless to have clean air standards if they can be circumvented by positioning plants near the border and then selling the power they produce across the border.

Response 0031-001

Regarding conditioning the Presidential Permits, please see the response to Key Issue 3.

COMMENTOR 0032: Gary Brazel

Comment 0032-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their

power plants before granting presidential permits, and that DOE condition any permits on mitigation.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0032-001

Please see the response to Comment 0022-001.

COMMENTOR 0033: Stacy L. Ozesmi

Comment 0033-001

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0033-001

Please see the response to Comment 0022-002.

COMMENTOR 0034: Ron Richards

Comment 0034-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the air and water impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

The draft EIS prepared by DOE for these two power plants clearly identifies these impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River

Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0034-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0035: Casey Roth

Comment 0035-001

As a concerned citizen and compassionate human being, I am horrified at U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment.

I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Response 0035-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0036: Merrill Cousin

Comment 0036-001

I am writing to insist that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation. I am very concerned that U.S. power plant developers are taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts. Yet it concludes that these problems do not reach a sufficient level of significance to require mitigation. The DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling for salinity, and

ignores other environmental impacts in Mexico. Inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0036-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0037: B. Todd Shirley

Comment 0037-001

It has come to my attention that two U.S. power plant developers (Semptra Energy and Intergen) are seeking permits to send electricity generated at plants in Mexico near its border with the U.S. into the United States. I also understand that these plants do not currently meet environmental standards imposed by the U.S. for its power plants. As granting them permits to distribute energy in the U.S. would likely encourage other such operations, to the detriment of surrounding areas' states of personal and environmental health, I encourage you to not to grant these plants permits to distribute their power in the U.S. unless they can meet the standards that we require of our own power plants.

Response 0037-001

The power plants in Mexico are permitted and regulated under Mexico authority to meet Mexico standards. Please see the response to Key Issue 1. The impacts in the United States from the operation of the plants as analyzed in this EIS will be considered in the decision to grant Presidential permits.

COMMENTOR 0038: Christine Powell

Comment 0038-001

I learned about U.S. power plant developers attempting to take advantage of less stringent environmental standards in Mexico during the NEPA process. It is very important the full NEPA process not be averted, shortened or avoided. That is your responsibility as a government worker and a US citizen.

The current NEPA regulation requires that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

That process must take into account the emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach a sufficient level of significance to require mitigation.

Response 0038-001

Please see the response to Comment 0022-001.

COMMENTOR 0039: Maureen Lattimore

Comment 0039-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two

Response 0039-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0040: John Fowler**Comment 0040-001**

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico at the expense of public health and the environment. I ask that the Department of Energy require that Semptra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June, 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0040-001

Please see the response to Comment 0022-001.

Comment 0040-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West.

Response 0040-002

Please see the response to Comment 0022-002.

Comment 0040-003

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons/yr of additional particulate matter. The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0040-003

Please see the responses to Comments 0022-003 and 0022-004.

COMMENTOR 0041: Karen Gayda

Comment 0041-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Semptra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

I live in San Diego County and I have a beach home in Rosarito. I see the effects of the complete disregard for the environment by the Mexican people and the by Mexican government on a daily basis. Allowing expansion of already unmitigated environmental damage is reprehensible. Moreover, these plants are not a necessity.

Greater demand for power in the Southwest is due to unrestrained growth because of local government's lack of desire constrain housing development because it generates tax revenue. These local officials neither have the capacity or the desire to consider the far reaching environmental effects and the lack of infrastructure to support the excessive population growth that these developments create.

Providing dirty power only exacerbates the problem. It's like the rich drug dealer providing greater quantities of heroin to drug blighted neighborhoods. The dealer's only concern is money and not how many lives are damaged or snuffed out.

Response 0041-001

Regarding the request that the Presidential permits be conditioned on mitigation, please see the response to Key Issue 3. Regarding the analyses of mitigation measures in the FEIS, please see the response to Comment 0030-001.

COMMENTOR 0042: Robert Vanderkamp

Comment 0042-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

Response 0042-001

Please see the response to Comment 0022-001.

Comment 0042-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West.

Response 0042-002

Please see the response to Comment 0022-002.

Comment 0042-003

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons/yr of additional particulate matter. Retrofitting the existing wet cooling systems with parallel wet-dry cooling

would greatly reduce consumptive water use at the plants while allowing the plants to generate full power on hot days.

Response 0042-003

Please see the response to Comment 0022-003.

Comment 0042-004

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0042-004

Please see the response to Comment 0022-004.

COMMENTOR 0043: Rudy Kelling**Comment 0043-001**

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0043-001

Please see the response to Comment 0022-001.

Comment 0043-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Response 0043-002

Please see the response to Comment 0022-002.

Comment 0043-003

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two

Response 0043-003

Regarding impacts in Mexico, please see the response to Key Issue 1. Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3.

COMMENTOR 0044: Jason Ball

Comment 0044-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment.

I ask that the Department of Energy require that Semptra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state.

Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Interger's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

Interger failed to install advanced NO_x controls on one of its export turbines on start-up in June 2003.

Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Interger a permit were therefore released.

This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0044-001

Please see the response to Comment 0022-001.

Comment 0044-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Response 0044-002

Please see the response to Comment 0022-002.

COMMENTOR 0045: Barbara Chally

Comment 0045-001

Ms. Russell, have you ever been to Imperial Valley? I have, and I write to ask that the Department of Energy require that Sempra Energy and Interger mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on this mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment.

Response 0045-001

Please see the response to Comment 0022-001.

Comment 0045-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California, which suffers from increasing salinity that may jeopardize one of the most important migratory bird habitats in the West. Processing wastewater to reduce or eliminate salinity prior to discharge into the river would effectively address a pollutant of concern for the river and the sea.

Response 0045-002

Please see the response to Comment 0022-002.

Comment 0045-003

I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants. DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants.

Response 0045-003

Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3. Regarding impacts in Mexico, please see the response to Key Issue 1.

COMMENTOR 0046: William E. Fraser

Comment 0046-001

Please require Sempra Energy and Intergen to meet US air quality standards before allowing them to build power plants along the U.S. - Mexico Border.

In my opinion, It is vital that we not export our pollution trouble to other countries. However, even if that is beyond the DOE mandate, we must make certain that we don't allow companies to use international borders to evade their responsibilities to U.S. citizens.

Response 0046-001

The power plants in Mexico are permitted and regulated under Mexico authority. Please see the response to Key Issue 1.

COMMENTOR 0047: Mac Downing

Comment 0047-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state.

Response 0047-001

The commentor's concerns are noted. The high asthma rate in Imperial County is noted in the EIS.

COMMENTOR 0048: Barbara Francisco

Comment 0048-001

Please do not grant permits to allow U.S. energy companies to transmit power from two power plants in Mexico that emit polluting particles into the air and dump high-saline wastewater into the New River.

Please see that the power plants meet U.S. environmental standards.

Response 0048-001

The impacts in the United States from the operation of the power plants in Mexico as analyzed in this EIS will be considered in the decision to grant Presidential permits for the transmission lines.

COMMENTOR 0049: Marilyn Burdick

Comment 0049-001

Please say NO to dirty power.

Response 0049-001

Comment noted.

COMMENTOR 0050: Thomas Matthews

Comment 0050-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico. This move is profit at the expense of public health and the environment. I ask that the Department of Energy require that Semptra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits. The DOE should condition the granting of any permits on mitigation.

My reasons for this request are:

- Public health (both in the U.S. and Mexico. Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico.

- The environment. The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West.

Response 0050-001

Regarding conditioning the Presidential permits, please see the response to Comment 0022-001. Regarding decreased flow and increased salinity in the New River, please see the response to Comment 0022-002. Regarding health impacts of power plant operations, please see Key Issue 13.

Comment 0050-002

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts. Unfortunately, the DOE wrongly concludes that these impacts are not significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores

the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public and the need to protect the New River. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these.

Response 0050-002

Please see the response to Comment 0022-004.

COMMENTOR 0051: Sandy van Calcar

Comment 0051-001

I am writing to comment on the DOE plan to provide a waiver of environmental standards to InterGen and Sempra energy plants located in Mexico. I am HIGHLY OPPOSED to this plan. Environmental regulations are necessary to protect the health of US citizens. Just because these plants decide to move to Mexico does not exempt them from these regulations. The pollutants from these plants will affect US citizens, particularly in southern California (not to mention the many Mexican citizens living near the plants). Someone has to draw the line with companies who move to Mexico to avoid US regulations. In my opinion, US plants should follow US regulations, no matter where they are located.

Response 0051-001

The power plants in Mexico are permitted and regulated under Mexico authority. Please see the response to Key Issue 1.

COMMENTOR 0052: Sarah F. Vines

Comment 0052-001

I'm extremely concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require that Sempra Energy and InterGen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

The DOE needs to put public health and environmental safety first, before economic interest. Please ensure that the air and water quality mitigation measures in the final EIS are stringent

enough to both safeguard the public health of both USA and Mexican citizens as well as protecting the Salton Sea and the New River.

Response 0052-001

Regarding the request that the Presidential permits be conditioned on mitigation, please see the response to Issue 3. Additional information has been added to the discussion of air and water mitigation opportunities in Section 2.4 of the FEIS.

COMMENTOR 0053: Gene Ulmer

Comment 0053-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation. Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border. Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June, 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0053-001

Please see the response to Comment 0022-001.

Comment 0053-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Response 0053-002

Please see the response to Comment 0022-002.

COMMENTOR 0054: Olive Wilson

Comment 0054-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state.

Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0054-001

Please see the response to Comment 0022-001.

Comment 0054-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons/yr of additional particulate. Processing wastewater to reduce or eliminate salinity prior to discharge into the river would effectively address a pollutant of concern for the river and the sea.

Response 0054-002

The commentor's concerns are noted. Regarding the decreased flow of water and increased salinity in the New River, please see the response to Comment 0022-002. Regarding the potential additional shoreline PM₁₀ emissions, the EIS now concludes that additional emissions would be less than 10 tons (9 t).

Comment 0054-003

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon.

Response 0054-003

Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3.

COMMENTOR 0055: Matthew Wold

Comment 0055-001

U.S. power plant developers should not take advantage of lower environmental standards in Mexico to profit at the expense of public health. The Department of Energy should require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that the DOE condition any permits on mitigation.

Border communities already suffer from poor air and water quality. They already have outrageously-high lung disease and asthma rates.

You know the facts about Intergen and their NO_x emissions and about the diversion of water from the Salton Sea.

You must formulate adequate air and water quality mitigation measures in the final EIS and in any permits.

Remember, many McCain/Perot voters like myself consider environmental protection to be a conservative issue.

Response 0055-001

Please see the response to Comment 0022-001.

COMMENTOR 0056: Bob Pulfer

Comment 0056-001

Please don't honor a request by electric power companies to import power from across the Mexican border. These companies are in violation of environmental laws and to allow them permission will open the door to other wrongdoers.

Response 0056-001

The power plants in Mexico are permitted and regulated under Mexico authority. Please see the response to Key Issue 1.

COMMENTOR 0057: Brad Miller

Comment 0057-001

I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0057-001

Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3.

COMMENTOR 0058: Cheryl McKinney

Comment 0058-001

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment.

I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen FULLY mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

Issues include:

- air quality: asthma and other pulmonary diseases
- water quality: salinity issues
- water quality: fresh water for Salton Sea Wildlife Refuge

Response 0058-001

Air quality and water quality impacts of the proposed projects are analyzed in the EIS. Regarding conditioning the Presidential permits on mitigation, please see the responses to Key Issue 3.

COMMENTOR 0059: **Neil Kraus**

Comment 0059-001

Please do not issue any permits to U.S power companies operating across the border in Mexico until they prove that they will meet the same high air and water quality pollution standards that are required of US companies.

Response 0059-001

Please see the responses to Key Issue 1, which discuss the permitting and regulating of the plants in Mexico.

COMMENTOR 0060: **David E. Roy**

Comment 0060-001

Fresno, CA, like Imperial, CA, has an extremely high rate of childhood asthma because of air that is highly polluted by local sources. Because of this, I am incredulous that there is any consideration on the part of the DOE to grant presidential permits to Semptra Energy and Intergen without requiring them to mitigate the impact of the power plants.

I find the on-going disregard of public well-being in these kinds of decisions to be unconscionable. Please reassure me that the DOE will help keep the health and welfare of human beings on both sides of this national border as a higher priority than the industrial enterprises that will benefit only a few. While we seem to need power, we do not need to have it at the unnecessary expense of the health of innocent citizens of two nations.

Response 0060-001

Regarding requiring mitigation measures in the Presidential permits, please see the response to Key Issue 3. The health impacts in the United States of the operation of the power plants in Mexico are analyzed in Section 4.11 of the EIS.

COMMENTOR 0061: Marie Le Boeuf

Comment 0061-001

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Semptra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June, 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0061-001

Please see the response to Comment 0022-001.

Comment 0061-002

The draft EIS prepared by DOE for these two power plants clearly identifies air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge.

I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0061-002

Please see the response to Comment 0022-004.

COMMENTOR 0062: Mary Warren

Comment 0062-001

Once again U.S. power plant developers and operators are looking to exploit the less stringent air quality standards in Mexico to line their pockets at the expense of public health and the

environment on both sides of the border. The U.S. Department of Energy (DOE) must demand that Sempra Energy and Intergen mitigate the harmful impacts of their power plants before granting the needed permits. Further, the DOE should condition any permits granted on mitigation accompanied by monitoring and reporting.

People living along the U.S.-Mexico border already suffer from poor air quality and scarcity of clean water. I don't understand why their situation is to be worsened so Americans can consume cheaper electricity.

Just think about it. If there were plans to create such power plants just over the border into Canada to ship cheap electricity into the United States, the Canadian government would never stand for it. And the Canadians living along the border would never stand for it. It because it's Mexico and Mexicans -- because they are poorer and weaker and because the health of Mexicans doesn't seem important to them -- that these corporations think they can get away with such an outrage. If that isn't exploitation at its ugliest, I don't know what is.

Response 0062-001

The power plants in Mexico are permitted and regulated under Mexico authority. Appendix J has been added to the FEIS, which summarizes the permitting and environmental studies performed in Mexico. Please see the response to Key Issue 1.

COMMENTOR 0063: Teddi Curtis

Comment 0063-001

Californians have been robbed by power companies such as Enron and El Paso who were allowed to create a power crisis and now the same DOE that allowed that wants to spread murky air so that our many years of work to clean our air are negated. Our state laws regarding air pollution will make it necessary for our own industries to make up the difference in clean air! If I were running a company in California I'd be very, very angry.

Response 0063-001

Comment noted.

COMMENTOR 0064: Vanessa Pinter

Comment 0064-001

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment.

I ask that Sempra Energy and Intergen NOT be granted presidential permits. (If so, I ask that DOE condition any permits on excellent mitigation, considering the health and well-being of people on both sides of the border.)

Childhood asthma in the US and Mexico is rising at an alarming rate. Clean air needs to be a basic right, part of our right to health and dignity.

The DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge.

I urge you to craft excellent air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0064-001

Regarding the request that the Presidential permits be conditioned on mitigation, please see the response to Key Issue 3. Regarding impacts in Mexico, please see the response to Key Issue 1. Additional discussion of water mitigation opportunities has been added to Section 2.4.1 of the EIS. An analysis of impacts on asthma in the United States has been added to Section 4.11.4.2.

COMMENTOR 0065: Carol S. Goodwin

Comment 0065-001

I am writing to urge the Department of Energy not to approve the presidential permits requested by Sempra Energy and InterGen to transmit power from their plants in Mexico across the border into California.

I believe these companies built plants in Mexico to take advantage of less stringent and less costly air and water quality control standards, with the intention of sending the power to the U.S. where the profit margin is higher. What benefits the economic interests of these companies certainly does not benefit the health and well-being of residents on both sides of the border.

Giving these plants permission to transmit power to the U.S., without requiring air and water quality mitigation, will encourage the development of other U.S. power plants in Mexico, further endangering the public's health and the environment. We cannot allow plants that violate U.S. emission standards to provide power to the U.S., and to operate in a way that compromises air and water quality in California.

I have read that the DOE's draft Environmental Impact Statement (EIS) for these two power plants identifies significant air and water impacts but, even so, concludes that these problems are not of a high enough level to require mitigation. The DOE must develop adequate air and water quality mitigation measures in the final Environmental Impact Statement and in any permits resulting from the statement. How can we as a nation, in good conscience, put our disadvantaged neighbors at risk, not to mention our own citizens?

Response 0065-001

Regarding conditioning the Presidential permits, please see the response to Key Issue 3. Additional discussion of water mitigation opportunities has been added to Section 2.4.1 of the EIS. The power plants in Mexico are permitted and regulated under Mexico authority. Please see the response to Key Issue 1.

COMMENTOR 0066: David Weldon

Comment 0066-001

This letter is in regards to the proposed power lines coming from the area near Mexicali Mexico into the Imperial Valley of California. Powerful power companies such as Sempra and Baja California Power should not be able to circumvent United States of America regulations and standards by simply moving their power plants 3 miles into Mexico. I am a local high school math teacher and I know that we have a much higher asthma rate in our valley and that unchecked pollution a couple miles away will exacerbate the health conditions of our local United States citizens. No approval or Presidential Permit of any kind should be made without both Sempra Energy and Baja California Power having to fulfill specific items completely for the safety, security, well-being, and Environmental Justice of the American Citizen that live in the Imperial Valley. Any Presidential Permit should contain regulations that force the power plants that are 3 miles just south of our boarder to operate at United States standards with regard to all pollution, mitigation offsets, and environmental impacts. **If any power plant generating power into the United States is not operating at United States Pollution control standards then the power line coming into the United States should be disconnected immediately.** California and surrounding areas need power we just don't need power companies that operate power generating facilities without any pollution controls dumping huge amounts of pollution into the local air of the Imperial Valley, **which by the way is already occurring at a plant we are talking about.** It is clear that these companies will generate power without proper pollution controls due to the fact that they all ready are! The pollution from these power plants comes directly into our US air space due to the typography of our bowl shaped valley. The power companies are out to make a profit and to do so they must have electricity moving over their generating lines. DOE and the Presidential Permit should also contain a comprehensive monitoring plan of the Imperial Valley air and water qualities. The power Companies should also invest in the Imperial Valleys projects to offset the pollution from the plants "note: the US standards of pollution". Additional, DOE should insist that the power plants add dry cooling systems to control the negative impact that the New River and Salton Sea.

If the items mention above are not implemented then it will be almost impossible for individual local United States Citizens, city, county and state governments to have legal redress from these companies when they: 1) pollute the Imperial Valley's air above United States Standards, 2) cause negative impacts on the health and welfare of the United States Citizens that live in this area, and 3)

Every issue comes down to some simple truths: 1) we need the power and we understand we will have extra pollution because of it but not at the unchecked, unenforceable levels that they will be able to operate at in Mexico, 2) the main difference between Mexico's legal system and our own is that ours places a much higher emphasis on individual rights which will be eliminated without proper regulation by the DOE, legislative bodies, and included in the proposed Presidential Permit, 3) I can keep my 1 year old son Steve, who has received breathing treatments, out of the New River "the most polluted dangerous water way in America" but I can't stop the pollution from those plants from entering his lungs.

You need to ask the question, "Why would these profit driven power companies not put their power plants 3 miles north on United States soil?". The answer is clearly to avoid US standards and regulations. Please do not let this happen. The tenth amendment to the United States of America reads: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." No law, regulation or lack of, Presidential Permit or lack of restriction there in should take away our Constitutional power of self-representation and legal redress to unregulated pollution that we had control over in the issuing/permit process. We can't tell Mexico or other similar big multinational companies how to act, just take a swim in the new River to figure that out but we can control our borders and preserve our nations individuals, cities, counties, and states rights.

Response 0066-001

The power plants in Mexico are permitted and regulated under Mexico authority. Please see the response to Key Issue 1. Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3. A discussion of the impacts of the power plants on asthma rates in Imperial County is provided in the response to Key Issue 13. For a discussion of the wet-dry cooling option, see Sections 2.3.1 and 4.5.5.2 of the EIS. DOE and BLM will consider the impacts of the projects as analyzed in the EIS in any decision to grant Presidential permits.

COMMENTOR 0067: Bryan Wyberg

Comment 0067-001

I am writing because I am very angry about the questionable actions being considered with regard to the building of two power plants in Mexico to produce power for California. This is a CLEAR CIRCUMVENTION of our nation's air pollution laws. If the Department of Energy should approve this proposal I feel it simply demonstrates once again how the Bush Administration is in the pockets of Big Energy. Please do not approve this project!

There is absolutely no way that you can present a believable case that the location of these plants just over the border in Mexico is not designed to do an end-run around US law. These US power plant developers are acting unethically to take advantage of less stringent standards of air and other environmental protections in Mexico. They should not be allowed to profit in this way at the expense of public health and the environment.

Therefore, I implore the Department of Energy to require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

All I hear about is the incredibly poor air quality of the Imperial Valley in California. The worst air in the nation. High Asthma rates. Attempts in the news to rein in emissions, such as from the exhaust of tractors for example. Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water.

DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border. And the pollution emitted in Mexico simply is blown into the already horribly polluted south central California region! It would be stupid to allow this to occur, and unconscionable for this project to move forward with its egregious impacts on health both north as well as south of the border.

Response 0067-001

Regarding requiring mitigation as a condition of the Presidential permits, please see the response to Key Issue 3. The poor air quality and high asthma rates in Imperial Valley are noted in the EIS. Impacts of the operation of the power plants on air quality and health are analyzed in the EIS. These impacts will be considered in the decision on the Presidential permits for the transmission lines.

Comment 0067-002

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons/yr of additional particulate matter. Retrofitting the existing wet cooling systems with parallel wet-dry cooling would greatly reduce consumptive water use at the plants while allowing the plants to generate full power on hot days. The parallel wet-dry option would also restore most of the river's flow to the sea and minimize particulate matter. Processing wastewater to reduce or eliminate salinity prior to discharge into the river would effectively address a pollutant of concern for the river and the sea.

Response 0067-002

Regarding potential additional shoreline PM₁₀ emissions, the FEIS now concludes in Section 4.3.4.4.4 that additional emissions would be less than 10 tons (9 t). Further discussion of the parallel wet-dry cooling option has been added to the FEIS in

Section 2.3.1 describing the technology in terms of a retrofit to the existing plants, and in Section 4.2.5.2 regarding impacts to water resources as compared to wet-only cooling.

Comment 0067-003

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge.

I urge the DOE to impose adequate air and water quality mitigation measures in the final EIS and in any permits based thereon. The only ethical action DOE can take is to head off this end-run around our nation's pollution control requirements. The DOE must effectively address the air and water quality impacts caused by these two power plants.

Response 0067-003

Please see the response to Comment 0022-004.

COMMENTOR 0068: Cindy Lamberti

Comment 0068-001

Power plants built just a few miles over the Mexico-USA border for all intensive purposes may as well be in the United States. Ozone and smoke don't care about manmade borders between countries. Even if you don't care about the health of our neighbors to the south, care about Americans who live in border towns. They deserve the same protections as if the power plant were on our side of the border. This is a shameless move to circumvent environmental standards. I guarantee that if the power plant executives lived in the border cities, they would be more careful.

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Semptra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June, 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0068-001

Please see the response to Comment 0022-001.

Comment 0068-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Response 0068-002

Please see the response to Comment 0022-002.

Comment 0068-003

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0068-003

Please see the response to Comment 0022-004.

COMMENTOR 0069: Joan Howe

Comment 0069-001

I object to the effort by Sempra Energy and InterGen to dodge U.S. environmental regulation by building electrical power plants in Mexico near the border and transmitting the electricity across the border to be sold here. Air pollution has no respect for borders. Please require that Sempra Energy and InterGen mitigate the impacts of their power plants before being granted presidential permits.

Response 0069-001

Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Key Issue 3.

COMMENTOR 0070: Diane Sklensky

Comment 0070-001

The environment is all one piece. There may be variations in local severity, but taking advantage of less stringent standards in Mexico still dumps garbage into the world's air and water. This is a cynical and destructive practice. The Dept. of Energy should require Sempra Energy and InterGen, who engage in this practice to send power back to the U.S. while avoiding U.S. standards, to clean up their power plants before granting presidential permits. DOE should make this mitigation of the impact of electricity generation a condition of any permits.

Nitrogen oxide (NO_x) and particulate emissions from InterGen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threaten the health and well-being of highly stressed communities on both sides of the California- Mexico border.

Transporting electricity long distances is inherently inefficient. Doing so to avoid environmental standards is wrong. The fact that, violating the terms of its permit, InterGen failed to install advanced NO_x controls on one of its export turbines on start-up in June, 2003 shows that monitoring, reporting, and enforcement need to be part of the permit, in addition to planned mitigation.

Response 0070-001

Regarding requiring mitigation, monitoring, and enforcement as conditions of the Presidential permits, please see the response to Key Issue 3. The impacts of power plant

emissions of NO_x and PM₁₀ on air quality and health are analyzed in the EIS in Sections 4.3 and 4.4, respectively.

Comment 0070-002

The water used for cooling also threatens critical wildlife habitat and causes additional particulate pollution by increasing the salinity and decreasing the volume of the Salton Sea. Retrofitting the existing wet cooling systems with parallel wet-dry cooling would greatly reduce consumptive water use at the plants while allowing the plants to generate full power on hot days. The parallel wet-dry option would also restore most of the river's flow to the sea and minimize particulate matter. Processing wastewater to reduce or eliminate salinity prior to discharge into the river would effectively address a pollutant of concern for the river and the sea.

Response 0070-002

Please see the response to Comment 0022-003.

Comment 0070-003

These and other significant air and water impacts were identified in the draft environmental impact statement. The conclusion that these are not sufficient to require amelioration puts the short-term economic interests of U.S. power developers ahead of public health and environmental health.

Why doesn't anyone ever talk about the economic interests of people who manufacture pollution control systems?

The final EIS should include mitigation measures and require them to be monitored and enforced, should any permits be issued.

Response 0070-003

The EIS identifies and quantifies the impacts of the proposed action and alternatives on air and water resources. As described in Sections 4.2 (water) and 4.3 (air), these impacts are shown to be fairly minimal. Regarding the mitigation measures and conditioning permits on enforcement, please see the response to Key Issue 3.

The economic impacts on pollution control system manufacturers would take place outside the geographic region of the proposed action and thus are outside the scope of the EIS.

COMMENTOR 0071: Jan Saecker

Comment 0071-001

Please do what you can personally to block the use of dirty power plants in Mexico so that energy companies can circumvent environmental regulations in the United States.

Even Mr. Bush may comprehend that air pollution has no high wall confining the damage to its source. Texans breathe the worst of this nation's air, but we all share in some of the Texas toxins, since air pollution is never confined to a single area. In fact, the bulk of all ambient industrial pollution finds its way to the polar regions, endangering indigenous populations. To a lesser extent, the temperate zones play host to pollution generated in warmer climates.

We need your help in passing the buck and the filth to Mexico. Such a policy would help no one.

Response 0071-001

Comment noted.

COMMENTOR 0072: Ernest Dain

Comment 0072-001

Please do not set a destructive precedent by allowing U.S. based energy-producing companies to bypass important restrictions that ensure the health and welfare of our and Mexico's citizens and transmit energy from higher polluting installations across the border into America. This would not be healthy for America or Mexico. It is important to maintain environmental safeguards to protect people and wildlife as much as possible. What kind of world are we leaving for the future? You have a role in the answer to that question!

Response 0072-001

Please see the response to Key Issue 1.

COMMENTOR 0073: Charlene Mayne Woodcock

Comment 0073-001

At a time when all responsible people on our planet should be working to reduce the burning of fossil fuels in order to slow climate change and global warming, U.S. power plant developers have gone across the border into Mexico to build plants to supply the U.S. energy market--a grossly irresponsible ploy to escape U.S. air pollution regulations.

I ask that the DOE not grant Intergen and Sempra Energy the right to sell energy in the U.S. if they pollute the air on the Mexico side of the border. Obviously the border will not protect U.S. citizens from the asthma, heart disease and other consequences of breathing foul air from power plant smokestacks.

The DOE's failure to require emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health of communities on both sides of the border.

The DOE's responsibility is to the U.S. public, not to profits for energy providers. Please recognize this responsibility and protect our interests as you frame the final EIS for these power plants.

Response 0073-001

Please see the response to Key Issue 3, which discusses conditioning the Presidential permits. Please see the response to Key Issue 13 concerning the potential health impacts in the United States of the power plant emissions.

COMMENTOR 0074: Rick Drayton

Comment 0074-001

After living in Taxco Gurerrero for some 30 odd years I have a very real understanding of the environmental sacrifices that Mexico is willing to make for a piece of the American pie. The uneducated character of the majority of the Mexican populace is the target of this fleecing of the American public. I am very concerned about U.S. power plant developers attempting to make a killing by selling electricity that the US consumer is paying top dollar for and expects to be environmental friendly only to find out that these companies have struck a deal with Mexico to produce electricity with 1950 technology that emits enormous quantities of pollution. Maybe not on paper but in practice it will. With constant monitoring it can be controlled. It is true that the paper deals that the US companies have made are impressive. If these were backed by a legal system that prosecutes more than 2 percent of the street crime that occurs within its borders it would be encouraging. Mexico does not have environmental laws that are enforceable. Unfortunately we can't enforce our own laws in our own country. The US corporations have teamed with front companies set up across the border for three distinct reasons. One: To fraudently sell electricity to unsuspecting US consumers who expect and assume that their electricity conform to the environmental standards that they have demanded from their congressional representatives. Two: To cut costs by half by scrimping on environmental protections and employing Mexican labor who have no union and make one forth of their American counterpart. The horrible conditions just across the border attest to the total social failure of trying to set up manufacturing opporations across the border without a significant investment in Housing, WATER, WATER, WATER. I ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Intergen failed to install advanced NO_x controls on one of its export turbines on start-up in June 2003.

Response 0074-001

Regarding conditioning the Presidential permits on mitigation, please see the response to Key Issue 3. Regarding the permitting and regulating of the power plants in Mexico, please see the response to Key Issue 1.

Comment 0074-002

The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons per year of additional particulate matter.

Response 0074-002

Regarding the increased salinity of the Salton Sea and the decreased flow of the New River, please see the response to Comment 0022-002. Regarding the potential additional shoreline PM₁₀ emissions, the EIS now estimates that additional emissions would be less than 10 tons/yr (9 t/yr).

Comment 0074-003

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient interest to require mitigation in the United States and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0074-003

Regarding the inclusion of mitigation measures in the Presidential permits, please see the response to Issue 3. Regarding impacts in Mexico, please see the response to Key Issue 1. Regarding the mitigation of health impacts, please see the response to Key Issue 13.

COMMENTOR 0075: Alexandra Lamb

Comment 0075-001

I urge the Department of Energy (DOE) not to grant the proposed presidential permits for the construction of transmission lines connecting to two Mexican power plants unless Baja California Power, Inc. (InterGen) and Sempra Energy Resources (Sempra) meet all federal environmental laws.

As a resident of southern California and frequent visitor to the Salton Sea to bird watch, I am extremely concerned that the Mexican power plants, La Rosita Power Project and Termoeléctrica de Mexicali, violate U.S. air emissions standards and threaten the health of the New River and Salton Sea ecosystems.

The Draft EIS fails to require adequate air quality mitigation measures such as emission offsets for nitrogen oxide and particulates, without which the power plants will exacerbate already poor air quality in the Imperial Valley basin and threaten public health on both sides of the border. It also fails to require adequate monitoring, reporting, and enforcement provisions that are necessary in light of InterGen's previous release of hundreds of tons of excess nitrogen oxide in June, 2003.

Response 0075-001

The power plants in Mexico are not subject to U.S. environmental laws. Please see the response to Key Issue 1. Analysis in Section 4.4.4 of the EIS indicates that power plant operations would not impact wildlife at the New River or Salton Sea. Regarding the request that conditions be placed on the Presidential permits, please see the response to Key Issue 3.

Comment 0075-002

The Draft EIS also fails to adequately address the deleterious impact of these plants on the water quality of the New River and Salton Sea. Both plants divert billions of gallons of low salinity water annually from the New River to evaporative cooling towers and return to the River nearly 1 billion gallons of high salinity wastewater. This diversion reduces the Salton Sea's volume, resulting in additional particulates from shoreline erosion, and increases its salinity, damaging the ecosystem and threatening one of the most significant migratory bird habitats in the United States. The DOE should include in the Final EIS requirements that the existing plant

cooling systems are retrofitted with parallel wet-dry cooling to reduce water consumption and that wastewater is processed to reduce or eliminate salinity.

Response 0075-002

Additional analysis of the wet-dry cooling option has been added to Section 2.3.1 of the EIS.

Comment 0075-003

I urge the DOE to make the protection of air quality, public health, and wildlife dependent on the Salton Sea paramount by holding InterGen and Sempra accountable to all U.S. environmental regulations.

Response 0075-003

Please see the response to Key Issue 1.

COMMENTOR 0076: Alan Forsberg

Comment 0076-001

Water and air pollution do not recognize borders. The air blows and streams flow right over those dotted lines on maps. By building power plants across the border in Mexico, the energy industry trying to escape the jurisdiction of US environmental laws, and yet the pollution they produce contaminates Mexico and comes right back across the border to the US. I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy require that Sempra Energy and InterGen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from InterGen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

InterGen failed to install advanced NO_x controls on one of its export turbines on start-up in June, 2003. Hundreds of tons of NO_x beyond what had been estimated when DOE initially granted InterGen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0076-001

Regarding conditioning the Presidential permits on mitigation, please see the response to Key Issue 3.

Comment 0076-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers -- water that would otherwise flow to the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West. Approximately 3.5 billion gallons per year of water are evaporated by the power plants that would otherwise moderate the Sea's salinity problem and increase flow in the New River, while nearly 1 billion gallons of high salinity wastewater are dumped into the river.

Water diversion accentuates New River and Salton Sea salinity, and reduces the volume of the Sea, exposing more shoreline to wind erosion, resulting in up to 100 tons/yr of additional particulate matter.

Response 0076-002

Regarding the decreased flow and increased salinity of the New River, please see the response to Comment 0022-002. Regarding the increase in particulate matter, the EIS now concludes that additional PM₁₀ emissions would be less than 10 tons (9 t).

Comment 0076-003

The draft EIS prepared by DOE for these two power plants clearly identifies these and other significant air and water impacts, while at the same time concluding that these impacts do not reach a sufficient level of significance to require mitigation. DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these impacts further demonstrates the need for impact mitigation and conditional permitting.

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0076-003

Please see the response to Comment 0022-004.

COMMENTOR 0077: Kathaleen Parker**Comment 0077-001**

I am very concerned about U.S. power plant developers taking advantage of less stringent standards in Mexico to make additional profits in the U.S. at the expense of public health and the environment.

Secretary Abraham, as the head of the Department of Energy, you should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River. I urge you to craft adequate air and water quality mitigation measures in the final EIS that effectively address the air and water quality impacts caused by the power plants. I also urge you to work together with the Mexican and California governments to bring clean renewable energy solutions to the region. Renewable energy like wind and solar will solve the air and water problems that plague the area and help solve our looming global warming crisis.

Response 0077-001

The commentor's concerns and preference for mitigation measures are noted.

COMMENTOR 0078: Jann Howell**Comment 0078-001**

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach a sufficient level of significance to require mitigation. The DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0078-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0079: Michael Heaney

Comment 0079-001

Allowing power plant developers selling power in the American market to take advantage of less stringent environmental standards in Mexico sets a disastrous precedent. I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border already suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach a sufficient level of significance to require mitigation. The DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin limits on salinity, and ignores impacts in Mexico. Inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0079-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0080: Harry A. Freiberg III

Comment 0080-001

I am writing to you to express my concerns about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require Intergen and Sempra Energy to mitigate the impacts of their power plants before being granted presidential permits and that DOE condition any permits on mitigation.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants, Intergen's La Rosita Power Complex and Semptra's Termoelectrica de Mexicali, clearly identifies significant air and water impacts, while at the same time concluding that these problems do not reach a sufficient level of significance to require mitigation. The DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0080-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0081: Dianne Post

Comment 0081-001

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require that Semptra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

I used to work in the border communities including Mexicali and Calexico. These communities already suffer from poor air quality and scarcity of clean water. Imperial County, California has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. The DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Semptra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0081-001

Please see the response to Comment 0022-001.

COMMENTOR 0082: Joanne Dunn**Comment 0082-001**

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border already suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. The DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0082-001

Please see the response to Comment 0022-001.

COMMENTOR 0083: Karen, Frank, and Dana Fickeisen**Comment 0083-001**

I am very concerned about Sempra Energy and Intergen misusing the system to develop plants that are hazardous to the health of people and the environment. If the DOE insists on permitting those plants, which I do not support, then at a minimum, the DOE must require mitigation efforts on the part of these groups. Without substantial mitigation efforts, they should not be granted presidential permits.

As you know, border communities already suffer from poor air quality, lack of clean water, and, as a result poor child health. It is morally repugnant to me that we are exporting problems to Mexico, and creating problems for children and adults in California. The DOES should insist that Intergen and Sempra Energy be held to higher standards.

Although the draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, the DOES seems reluctant to

enforce air quality regulations and the Colorado River Basin's water quality ceiling. It also ignores the impacts on Mexico which, again, is morally reprehensible. We are fueling our reckless energy consumption by ignoring the harm we do to other human beings and to the environment as a whole. The time will come when all this recklessness will create a crash and that is quite clear scientifically. It seems incumbent upon us to consider our descendants when taking actions that may make their lives more difficult.

The DOE does not have a mandate to increase the profits of U.S. energy producers. It has a mandate to help develop safe, clean energy that will be of broad public benefit, including the public health of U.S. and Mexican citizens and the health of the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you first of all to deny these permits. If there is too much political pressure for this, then you must insist on strong air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0083-001

Regarding requiring mitigation as a condition of the Presidential permits, please see the response to Key Issue 3. Regarding the regulation of the power plants in Mexico, please see the response to Key Issue 1. Also, further analysis of the Colorado River Basin 4,000-mg/L TDS objective has been added to the EIS in Section 4.2.4.1.2.

COMMENTOR 0084: Lin Kaatz Chary

Comment 0084-001

I am writing to comment on the pending issue of Department of Energy (DOE) issuance of presidential permits to Sempra Energy and Intergen. As an environmental health professional, I am extremely concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. It is critical that no permits be granted to Sempra or Intergen until they have made binding commitments to mitigate the impacts of their power plants, and that DOE condition any permits on mitigation, both in this case and in others of a similar nature.

Communities along the U.S.-Mexico border already suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. The DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

In my understanding, this is NOT the manner in which either NAFTA nor the proposed CAFTA are intended to operate, nor is the failure of DOE to insist on offsets consistent with promised policy under the Bush administration, which purports to promote the rule of law and protection of the environment. The draft Environmental Impact Statement (EIS) prepared by the DOE for

these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach a sufficient level of significance to require mitigation. The DOE misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I call on you to assure adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0084-001

With regard to the application of U.S. air quality regulations, please see the response to Key Issue 2. Regarding requiring mitigation as a condition of the Presidential permits, please see the response to Key Issue 3. Regarding the impacts of power plant operations on human health, please see the response to Key Issue 13. Also, further analysis of the Colorado River Basin 4,000-mg/L TDS objective has been added to the EIS in Section 4.2.4.1.2.

COMMENTOR 0085: Will Edgington

Comment 0085-001

I am very concerned about U.S. power plant developers taking advantage of less stringent environmental standards in Mexico to profit at the expense of public health and the environment. I ask that the Department of Energy (DOE) require that Sempra Energy and Intergen mitigate the impacts of their power plants before being granted presidential permits, and that DOE condition any permits on mitigation.

Further, I am also concerned about security, reliability, and safety issues, all of which are less regulated in Mexico.

Communities along the U.S.-Mexico border already suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. The DOE's failure to insist on emission offsets for nitrogen oxide (NO_x) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

The draft Environmental Impact Statement (EIS) prepared by the DOE for these two power plants clearly identifies significant air and water impacts, while at the same time concludes that these problems do not reach a sufficient level of significance to require mitigation. The DOE

misapplies U.S. air quality regulations, ignores the Colorado River Basin water quality ceiling of 4,000 mg/l salinity, and ignores impacts in Mexico when inclusion of these effects further demonstrates the need for mitigation and conditional permitting.

The DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens, nor ahead of the need to protect the New River, an important source of fresh water for the Sonny Bono Salton Sea National Wildlife Refuge. I urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based upon them.

Response 0085-001

Please see the responses to Comments 0022-001 and 0022-004.

COMMENTOR 0086: Campaign letter

Comment 0086-0001

We are very disturbed about U.S. power plant developers taking advantage of less stringent standards in Mexico to profit at the expense of public health and the environment. We ask that the Department of Energy require that Sempra Energy and Intergen mitigate the impacts of their power plants before granting presidential permits, and that DOE condition any permits on mitigation.

Communities along the U.S.-Mexico border suffer from poor air quality and scarcity of clean water. Imperial County, California, has the highest childhood asthma rate in the state. Pulmonary sickness rates are also elevated in Mexicali, a city of 600,000 just south of Imperial County in Mexico. DOE's failure to insist on emission offsets for nitrogen oxide (NOx) and particulate emissions from Intergen's La Rosita Power Complex and Sempra's Termoelectrica de Mexicali threatens the health and well-being of highly stressed communities on both sides of the border.

Intergen failed to install advanced NOx controls on one of its export turbines on start-up in June, 2003. Hundreds of tons of NOx beyond what had been estimated when DOE initially granted Intergen a permit were therefore released. This incident proves that, in addition to adequate mitigation measures, ongoing monitoring, reporting, and enforcement provisions in the presidential permits are vital.

Response 0086-001

Please see the response to Comment 0022-001.

Comment 0086-002

The two power plants divert tremendous amounts of low salinity water from the New River to evaporative cooling towers — water that would otherwise flow to the Salton Sea National

Wildlife Refuge in Imperial County, California. The Salton Sea suffers from increasing salinity that may ultimately jeopardize its status as one of the most important migratory bird habitats in the West.

Response 0086-002

Please see the response to Comment 0022-002.

Comment 0086-003

DOE should not place the economic interests of U.S. power developers ahead of the public health of U.S. and Mexican citizens living in the vicinity of these plants, nor ahead of the need to protect the New River, an important source of fresh water for the Salton Sea National Wildlife Refuge. We urge you to craft adequate air and water quality mitigation measures in the final EIS and in any permits based thereon, that effectively address the air and water quality impacts caused by these two power plants.

Response 0086-003

Further analysis of potential water mitigation measures has been added to Section 2.4.1 of the EIS.

